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OFFICE OF TECHNICAL SERVICES

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Vol. 7 — October 10, 1947 — No. 2

CONTENTS

CHEMICALS AND ALLIED PRODUCTS....95 - 103
AGRICULTURAL CHEMICALS....95
ORDNANCE CHEMICALS....96 - 96
MISCELLANEOUS CHEMICALS....96 - 103

ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES....103 - 104
ELECTRONICS....103
GENERATORS, MOTORS, TRANSMISSION, DISTRIBUTION, AND ALLIED EQUIPMENT....103 - 104
MISCELLANEOUS....104

MACHINERY (EXCEPT ELECTRICAL)....104

METALS AND METAL PRODUCTS....104 - 114

METEOROLOGY AND CLIMATOLOGY....115

MINERALS AND MINERAL PRODUCTS....115 - 116

PERSONNEL APTITUDE TESTING AND JOB TRAINING....117

PHOTOGRAPHIC AND OPTICAL GOODS (INCLUDING PHOTOGRAPHIC PROCESSING)....117 - 121

TRANSPORTATION EQUIPMENT....121 - 125
AERONAUTICS....121 - 124
AIRCRAFT....121 - 123
INSTRUMENTS....123 - 124
ENGINES AND PROPELLERS....124
LAND TRANSPORTATION....124 - 125

MISCELLANEOUS....126 - 133, 157 - 181

PATENTS....133 - 181
TEXTILES AND TEXTILE PRODUCTS....133 - 157
MISCELLANEOUS....157 - 181

REGISTER OF PATENTS AVAILABLE FOR LICENSING OR SALE....182 - 187

PUBLICATIONS ISSUED BY OFFICE OF TECHNICAL SERVICES....188

* Indicates that reports in the BIOS, CIOS and FIAT series are deposited in the Library of Congress Depository Libraries. For a complete list of these libraries, see page facing page 1, volume 5, of this Bibliography.

In addition to the indexes described on the back cover of this Bibliography, the Office of Technical Services has published the following reference works:

PB L 58101. SWIFT, GRACE. Government document series, analyzed by Office of Technical Services. Jan 1947. 46 p. Price: 25¢

PB L 78000. LOWRY, W. KENNETH. OSRD reports: Bibliography and index of declassified reports having OSRD numbers. Jun 1947. 105 p. Price: 75¢

PB L 79322. SWIFT, GRACE and ORNE, JERROLD. Subject headings for technical libraries. Jun 1947. 167 p. Price: $1.50

Erratum: v. 6, p. 716, PB L 17681 is incorrectly listed as PB L 17680.

CHEMICALS AND ALLIED PRODUCTS

Agricultural Chemicals

PB L 61380. GREAT BRITAIN. DEPARTMENT OF HEALTH FOR SCOTLAND. SCIENTIFIC ADVISORY COMMITTEE. Control of midges. An interim report of a sub-committee. (British Commonwealth Scientific Office Rept 117-32-93) 1946. 9 p. Price: Microfilm-$1.00 - Photostat-$1.00
The midge in Scotland may not be a carrier of infection but its biting propensities make it a source of irritation. A Sub-Committee of the Scientific Advisory Committee was appointed to advise on development of satisfactory repellents, etc. This report gives an account of the work of the Sub-Committee in 1945. A formula for a midge repellent was produced and used successfully in the season of 1946. The formula is included in this report.

PB L 73717. I.G. FARBENINDUSTRIE A.G., LUDWIGSHAFEN, GERMANY. Reports in the field of agricultural chemistry. (FIAT Microfilm Reel R 60, Frames 6106-6367). 1932-1944. 263 f. Price Microfilm-$3.50 - Enlargement print $26.50
The titles of the documents reproduced on this FIAT microfilm reel are listed below. Individual items will be available as enlargement prints only. Please include PB and frame numbers when ordering particular documents from this reel. In German.

Frames	Title	Price
6106-6121 PB L 73717	Criticism of Sekera's booklet "The healthy and unhealthy soil". By Römer, 1944. In German.	$2.00
6122-6161 PB L 73717	The enrichment of the soil with organic substances by succession cropping of fodder plants. By Römer, 1944. In German.	4.00
6162-6168 PB L 73717	Verification of the possibility of fixing atmospheric nitrogen by coupling energy-producing reactions. By Volz, 1940. In German.	1.50
6169-6173 PB L 73717	Forest fertilizing experiments (lots: Speyer III, 12a and III, 15 b); examination of pine needle litter. By Römer, 1938. In German.	1.50
6174-6185A PB L 74717	Fertilizing experiments with pines in the Mutterstadt forest. By Römer, 1938. In German.	1.50
6186-6195 PB L 73717	The determination of nitrate nitrogen in the soil in the presence of lime nitrogen. By Römer, 1937. In German.	1.50
6196-6203 PB L 73717	Measurement of the fluctuations of the water content of the soil by means of an electrical method. By Volz, 1937. In German.	1.50
6204-6230 PB L 73717	The reactions of different kinds of nitrogen in the soil. By Römer, 1937. In German.	3.00
6231-6253 PB L 73717	The soil improving action of humus. By Volz, 1937. In German.	2.50
6254-6262 PB L 73717	The influence of nitrates on burning and quality of tobacco. By Römer, 1936. In German.	1.50
6263-6269 PB L 73717	The soil improving action of stable manure on pastures. By Römer, 1934. In German.	1.50
6270-6292 PB L 73717	The possibility of improving sandy soils with the peat compost preparation by addition of ammonium-bicarbonate or by use of neutralised lignite. 1935. In German.	2.50
6293-6304 PB L 73717	The loss of ammonia in stable manure on grass land. By Römer. 1936. In German.	1.50
6305-6316 PB L 73717	The solubility of granulated calcium ammonia and calcium ammonium nitrate on the field. By Römer, 1934. In German.	1.50
6317-6339 PB L 73717	The problem of the granulation of fertilizers. By Römer. 1933. In German.	2.50
6340-6351 PB L 73717	The problem of ammonia loss in "Ruminal" (chemically improved peat fertilizer). By Römer, 1932. In German.	1.50
6352-6367 PB L 73717	The use of silica sol. Wolfen, in the tobacco industry. By Römer, 1932. In German.	2.00

PB L 73717-S. I.G. FARBENINDUSTRIE A.G., LUDWIGSHAFEN, GERMANY. Reports in the field of agricultural chemistry. (FIAT Microfilm Reel R 60, Frames 6106-6367, abstract cards). 1932-1944. 30 p. Price: Microfilm-$1.00 - Photostat-$2.00
These are short abstracts of the items on reel R 60 (PB 73717). described above. They were prepared by FIAT abstracters in Germany.

Ordnance Chemicals

PB L 53807. BURTON, O. E. Study of the effect of the common impurities in mercury fulminate on its stability. Second progress report. (Picatinny Arsenal Tech Rept 208) Apr 1932. 21 p. Price: Microfilm-$1.00 - Photostat-$2.00
In the first report on this problem, Picatinny Arsenal Technical Report No. 103 (not available for this Bibliography), it was indicated that the purification of mercury fulminate by recrystallization was difficult and tended to impair the explosive and crystal characteristics of the material complying with the U.S. Army Specification. This report gives the results obtained in the course of the purification of additional samples and of tests made during one year of storage of these samples. Photographs, tables and graphs are included. For progress reports 3 and 4, see PB 53805 and PB 53804.

PB L 74242. I.G. FARBENINDUSTRIE, A.G., BOBINGEN, GERMANY. Explosives. (FIAT Microfilm Reel D-11, Frames 1-909) 1936-1944. 909 f. Price: Microfilm - $6.00 - Enlargement prints - $91.00
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

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1-7 PB L 74242	Badly reproduced sectional drawings. In German.	$1.50
8-9 PB L 74242	The effectiveness of construction explosives. In German.	1.50
10-11 PB L 74242	Measurements of explosives. In German.	1.50
12-13 PB L 74242	Report on cellulose nitration. In German.	1.50

Ordnance Chemicals (contd)

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32-53 PB L 74242	Grinding tests with elutriated lignin. In German.	2.50
54-65 PB L 74242	Nitration of cellulose with vapor-like nitric acid. In German.	1.50
66-90 PB L 74242	Various explosive filling methods and a new process with proper devices for the automatic loading of explosives into bombs. In German.	3.50
91-120 PB L 74242	Measurement of air blast waves during the detonation process. In German.	3.00
121-145 PB L 74242	The continuous production of "Ammon" powder. In German.	2.50
146-208 PB L 74242	Reflection and amplifying effect of air waves on hollow cones. In German.	6.50
209-392 PB L 74242	Measurements of the development and effect of air blast waves during the detonation process. In German.	18.50
393-426 PB L 74242	Investigation of the pressing procedure of alkaline cellulose. In German.	3.50
427-475 PB L 74242	Processing procedure of alkaline cellulose paste. Drawings of worm presses. In German.	5.00
476-478 PB L 74242	Konturbox centrifuge used for the centrifugal process of alkaline cellulose paste. In German.	1.50
479-506 PB L 74242	Method for the continuous separation of alkaline cellulose. In German.	3.00
507-717 PB L 74242	Various reports, data, and drawings of worm presses, rayon staple machinery, and pumps. In German.	21.50
718-909 PB L 74242	Spectroscopic analyses and the hydrogen content of waste gases. In German.	19.50

Miscellaneous Chemicals

PB L 73715. DEUTSCHE GOLD-U. SILBERSCHEIDEANSTALT, KONSTANZ. A collection of reports on various chemical processes. (FIAT Microfilm Reel M 36, Frames 5766-6685). 1940-1943. 930 f. Price: Microfilm-$6.00 - Enlargement print-$93.00
This FIAT microfilm reel consists of items in the field of organic chemistry. Individual items are listed below and will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

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5766-5768 PB L 73715	Determination of the freezing points of mixtures of methanol and water. By Schmiche, 1940. In German.	1.50
5769-5779 PB L 73715	Salt for the dehydration of alcohol. By Kommer, 1940. In German.	1.50
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5824-5831 PB L 73715	Preparation of pentaerythritol, yielding a white crude product low in ash content. By Kudesus, 194.. In German.	1.50
5832-5843 PB L 73715	Condensation of acrolein with ammonia to form beta-picoline. By Stitz, 1941. In German.	1.50
5844-5847 PB L 73715	Degree of purity of pentaerythitol. By Hensinger, 1941. In German.	1.50
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5863-5867 PB L 73715	Plant experiments for the concentration of "Pentol B" by means of stens in the vacuum. By König, 1941. In German.	1.50
5868-5874 PB L 73715	Conversion of ethyl acetate to ethyl formate with the aid of formic acid, the extraction of cooling water of Henkel and Cie. By Sobek, 1941. In German.	1.50
5875-5886 PB L 73715	Assembly and construction of test apparatus for activated carbon. By Leverkus, 1941. In German.	1.50
5887-5891 PB L 73715	Hydrocyanic acid from acetone cyanohydrin. By Schulz, 1941. In German.	1.50

Miscellaneous Chemicals (contd)

5892-5900 PB I 73715 — Experiments for the preparation of ethyltrimethylolmethane and dimethyldimethylolmethane from butyraldehyde or isobutyraldehyde and formaldehyde; experiments for increasing the yield of the synthesis of methyltrimethylolmethane from propionaldehyde and formaldehyde. By Schwarze, 1941. In German. 1.50

5901-5925 PB L 73715 — Determination of the methanol content of pure mixtures of methanol and water, based on the specific gravity at 20° C. By Schmiche, 1941. In German. 2.50

5926-5928 PB L 73715 — Experiments for preparing beta-hydroxy propionaldehyde or acrolein from acetaldehyde and formaldehyde by a wet method. By Schwarze, 1941. In German. 1.50

5929-5930 PB L 73715 — Experiments for the oxidation of pentaerythritol. By Stitz, 1941. In German. 1.50

5931-5934 PB L 73715 — Preparation of methylglycerol from crotonaldehyde. By Schulz, 1941. In German. 1.50

5935-5939 PB L 73715 — Analysis of paraformaldehyde. By Schmiche, 1941. In German. 1.50

5940-5946 PB L 73715 — Dehydration of the cooling water of Henkel and Cie. By Sobek, 1941. In German. 1.50

5947-5952 PB L 73715 — Experiments for transforming methoxy acetonitrile into acrylonitrile. By Schwarze, 1941. In German. 1.50

5953-5966 PB L 73715 — Formation of acetic ester from acetaldehyde in the presence of aluminum butylate. By Buchholz, 1941. In German. 1.50

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5974-5980 PB L 73715 — Corrosion of various metals and other materials through the action of pure monochloroacetic acid, the reaction liquids, and waste gases forming during the production of the acid. By Jung, 1941. In German. 1.50

5981-5989 PB L 73715 — Plant experiments for the production of comsercial pentaerythritol with the highest possible yield. By Richter, 1941. In German. 1.50

5990-5993 PB L 73715 — Dehydration of the cooling water of Henkel and Cie by azeotropic distillation (addition to the item on frames 5940-5946). 1941. In German. 1.50

5994-5996 PB L 73715 — Preparation of nitromethylglycerol. By Stitz, 1941. In German. 1.50

5997-6003 PB L 73715 — Preparation of thiourea. By Günther, 1941. In German. 1.50

6004-6008 PB L 73715 — Carbonization of lignite. By Leyersapf, 1941. In German. 1.50

6009-6013 PB L 73715 — Deacidification of fatty esters of "Penta" forerun ("Plasticizer T") by means of steam in the vacuum, whereby an extremely light-colored ester is obtained (pilot plant experiment). By Querfurth, 1941. In German. 1.50

6014-6019 PB L 73715 — Action of atmospheric moisture on ethyl xanthates at 20° C. By Günther, 1941. In German. 1.50

6020-6021 PB L 73715 — Preparation of glycerol trinitrate. By Günther, 1941. In German. 1.50

6022-6027 PB L 73715 — Spontaneous ignition of ethyl xanthate. By Günther, 1941. In German. 1.50

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6031-6033 PB L 73715 — Preparation of symmetrical trioxane according to the U. S. Patent Application of Dupont/Frank CCD 1487 ser. No. 313467. By Schmiche, 1941. In German. 1.50

6034-6038 PB L 73715 — Direct preparation of butanol from acetaldehyde. By Querfurth, 1941. In German. 1.50

6039-6042 PB L 73715 — Dehydration of azeotropic distillation (addition to reports on frames 5090-5993 and 5940-5946). By Sobek, 1941. In German. 1.50

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6065-6079 PB L 73715 — Preparation of acetic ester from acetaldehyde by a multiphase laboratory experiment. By Gaul, 1941. In German. 1.50

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6121-6124 PB L 73715 — Deodorizing methylethylketone by treatment with sodium hydroxide solution. By Querfurth, 1941. In German. 1.50

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6131-6149 PB L 73715 — Third report; experiments for the methanol synthesis by means of alkalized zinc-chromium catalysts. By Bayer, 1941. In German. 2.00

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6154-6157 PB L 73715 — Acetic ester from acetaldehyde. Second multiphase plant experiment. By Gaul, 1941. In German. 1.50

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6240-6253 PB L 73715 — Continuous plant experiments for the production of acetic ester from acetaldehyde. By Gaul, 1941. In German. 1.50

6254-6256 PB L 73715 — Paraformaldehyde. By Hensinger, 1941. In German. 1.50

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6294-6299 PB L 73715 — Separation of styrene and ethylbenzene by distillation. By Querfurth, 1942. In German. 1.50

6300-6304 PB L 73715 — Determination of formaldehyde by the hydroxylamine method or by reduction with silver compounds. By Schmäche, 1942. In German. 1.50

6305, 6305A -6306 PB L 73715 — Distillation of mixtures of crotonaldehyde and water. By Brendlein, 1942. In German. 1.50

6307-6321 PB L 73715 — Electrodialytic determination of the total acid content in gray lime. 1942. In German. 1.50

6322-6325 PB L 73715 — Electrodialytic deacidification of formaldehyde. By Siegmund, 1942. In German. 1.50

6326-6328 PB L 73715 — Electrodialytic ash removal from activated carbon. By Siegmund, 1942. In German. 1.50

6329-6331 PB L 73715 — Esterification of an aqueous solution of ammonium acetate, with ethanol in the gas phase. By Querfurth, 1942. In German. 1.50

6332-6354 PB L 73715 — Carbonization of 15 kinds of West-African wood. By Leyermapf, 1942. In German. 2.50

6355-6357 PB L 73715 — The solubility of xylene in water with an increasing content of formic acid or acetic acid. By Sobek, 1942. In German. 1.50

6358-6360 PB L 73715 — Several monopentaerythritol esters. Plasticisers from pentaerythritol and crude fatty acid obtained with the oxidation of paraffin. By Querfurth and Gebel, 1942. In German. 1.50

6361-6364 PB L 73715 — Preparation of methriol from formaldehyde and propionaldehyde. By Richter, 1942. In German. 1.50

6365-6367 PB L 73715 — Quantitative analysis of potassium n-caurate by means of electrodialysis. By Siegmund, 1942. In German. 1.50

6368-6372 PB L 73715 — Experiments for the preparation of mono-, di-, and trithiodiglycolic acids. By Leyermapf, 1942. In German. 1.50

6373-6376 PB L 73715 — Conversion of hydrocyanic acid to formic acid. By Sobek, 1942. In German. 1.50

6377-6380 PB L 73715 — Identical with frames 6373-6376.

6381-6411 PB L 73715 — A new synthetic resin from acrolein and pentaerythritol. By Wagner, 1942. In German. 3.50

6412-6413 PB L 73715 — Experiments for the addition of hydrocyanic acid to monochloroacetaldehyde. By Sobek, 1942. In German. 1.50

6414-6418 PB L 73715 — Purification of acetylene with chlorine water. By Sobek, 1942. In German. 1.50

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6424-6428 PB L 73715 — Fatty acids from low-temperature carbonization liquor. By Querfurth, 1942. In German. 1.50

6429-6433 PB L 73715 — Various dipentaerythritol esters: plasticisers from dipentaerythritol and (1) acetic acid, (2) forerun fatty acids V 49, or (3) acetic acid + forerun fatty acids V 49. By Gebel and Querfurth, 1942. In German. 1.50

6434-6435 PB L 73715 — Bactericidal effect of a root filling agent from self hardening methyl ester of methacrylic

acid. By Schuchardt, 1942. In German. 1.50

6436-6441 PB L 73715 — Various monopentaerythritol esters. Plasticizers of the type: 2 1/2 parts of acetic acid with 1 mol of pentaerythritol and 1 mol of an other aliphatic acid, e. g. fatty acid obtained by distillation (so-called "soap fatty acid"), lactic acid, oxalic acid (2 mols), linseed oil fatty acid. By Gabel, 1942. In German. 1.50

6443-6444 PB L 73715 — Water soluble paraformaldehyde: critical review of Burschall's work, according to which a soluble grade of paraformaldehyde is obtained by evaporization of common paraformaldehyde in the nitrogen current, absorption of the vapors in water, and subsequent treatment of the destillates. By Schmache, 1943. In German. 1.50

6445-6458 PB L 73715 — Various mono "Penta" esters. Plasticizers from pentaerythritol + 2 mols of acetic acid 3 T ", which is further esterified with 2 mols forerun fatty acids V 46 - 2 T 246 and 2 mols forerun fatty acids V 69 - 2 T 269. By Gabel, 1942. (This is a continuation of the report on frames 6436-6441). In German. 1.50

6459-6464 PB L 73715 — Water-soluble paraformaldehyde. By Schmache, 1942. In German. 1.50

6465-6469 PB L 73715 — Experiments regarding the preparation of methyl and ethyl trimethylol methane ("Athriol"). By Schmidt, 1942. In German. 1.50

6470-6487 PB L 73715 — Preparation of trihydroxybutane (methyl glycerol) from crotylalcohol. By Gaul, 1942. In German. 2.00

6488-6492 PB L 73715 — Plasticizers from trihydroxybutane, methylglycerol, and acetic acid or forerun fatty acids. By Gabel, 1943. In German. 1.50

6493-6496 PB L 73715 — Forerun fatty acid esters of 2-octyl-1-dodecanol and 2-hexyl-1-decanol. By Gabel, 1942. In German. 1.50

6497-6500 PB L 73715 — Forerun fatty acid esters of methyl-trimethylol-methane and ethyl-trimethylol-methane, completely esterified. By Gabel, 1942. In German. 1.50

6501-6505 PB L 73715 — Experiments for comparing untreated forerun fatty acids with those treated by an oxidation method, during the preparation of almost odorless pentaerythritol esters as softeners. By Gabel, 1942. In German. 1.50

6506-6509 PB L 73715 — Esters from iso-lauryl alcohol, 2-butyl-1-octanol, and n-heptanoic acid (enanthic acid). By Gabel, 1942. In German. 1.50

6510-6521 PB L 73715 — Fatty acid from liquid resulting from low temperature carbonization. By Querfurth, 1942. In German. 1.50

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6536-6558 PB L 73715 — Starting an acrolein plant with an output of 10 tons per month at Mombach. By Wagner, 1942. In German. 2.50

6559-6564 PB L 73715 — Purification of crude acetylene by spraying with chlorine water. By Sobek, 1942. In German. 1.50

6565-6568 PB L 73715 — Production of beta-chloropropionic acid by photochemical chlorination. By Hensinger, 1943. In German. 1.50

6569-6572 PB L 73715 — Production of plasticizers based on pentaerythritol esters. By Querfurth and Wagner, 1943. In German. 2.00

6573-6585 PB L 73715 — Production of mixed acetic acid and nitric acid esters of pentaerythritol. Investigations on their use as explosives and gelatinizing agents for highly nitrated nitro-cellulose. By Wagner, 1943. In German. 1.50

6586-6590 PB L 73715 — Experiments for increasing the portion to be dehydrogenated in the production of formaldehyde. By Gaul, 1943. In German. 1.50

6591-6593 PB L 73715 — See frames 6522-6535.

6594-6628 PB L 73715 — Steam activation of carbon. By Uthe-Maier, 1943. In German. 3.50

6629-6635 PB L 73715 — Carbonization of conifers from Finland. By Gaul, 1943. In German. 1.50

6636-6649 PB L 73715 — Preparation of plasticizers on the basis of pentaerythritol esters. By Querfurth and Wagner, 1943. In German. 1.50

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6655-6667 PB L 73715 — Ring cleavage in formyl dihydropyran to form 1,2,6-hexanetriol and its derivatives. By Schulz, 1943. In German. 1.50

6668-6679 PB L 73715 — Disgrimation of n-hexylalcohol to form isolaurylalcohol and disgrimation of isolaurylalcohol to form isocetylalcohol. By Querfurth, 1943. In German. 1.50

6680-6683 PB L 73715 — Preparation of 2-formyl-2,3-dihydropropane. By Smarvasi, 1943. In German. 1.50

6684-6685 PB L 73715 — Experiments for preparing isocyanic esters from sodium cyanate. By Schwarze, 1943. In German. 1.50

PB L 73715-S. DEUTSCHE GOLD-U. SILBERSCHEIDEANSTALT. KONSTANZ. A collection of reports on various chemical processes. (FIAT Microfilm Reel M 36, Frames 5756-6685, abstract cards). 1940-1943. 133 p. Price: Microfilm-$3.00 - Photostat-$9.00 These are abstracts of the items on reel M 36 (PB L 73715) described above. They were prepared by FIAT abstracters in Germany.

PB L 70014. DOCUMENTS CENTER, FRANKFURT/MAIN. Reports on the production of acetylene. (FIAT Microfilm Reel CC212, Frames 1-342). 1926-1940.

Miscellaneous Chemicals (contd)

315 f. Price: Microfilm-$4.00 - Enlargement print-$31.50

This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-17 PB L 70014	Washing out of gases in gas mixtures. Nov 16, 1926. In German.	$2.00
18-36 PB L 70014	Examinations on the solubility of acetylene in various organic liquids. Oct 16, 1928. In German.	2.00
37-49 PB L 70014	Washing out acetylene from luminous arc gas by means of acetone under pressure and at low temperatures. Jul 24, 1930. In German.	1.50
50-76 PB L 70014	The concentration of the acetylene contained in luminous arcs. Aug 1, 1930. In German.	3.00
77-85 PB L 7001[illegible]	Purification of gases through low cooling. Nov 8, 1930. In German.	1.50
86-91 PB L 70014	These frames were omitted because of duplication.	
92-121 PB L 70014	The solubility of acetylene in liquids. Aug 19, 1930. In German.	2.00
122-127 PB L 70014	Liquid ammonia as a solvent for liquid hydrocarbons. Dec 17, 1930. In German.	1.50
128-147 PB L 70014	Concentrating of luminous arc acetylene. Mar 12, 1931. In German.	2.00
148-159 PB L 70014	These frames were omitted because of duplication.	
160-171 PB L 70014	On the recovery of cyclohexanone vapors. Apr 22, 1931. In German.	1.50
172-194 PB L 70014	Improvement of the Claus process. May 17, 1933. In German.	2.50
195-214 PB L 70014	Directions for the operation of "I.G. Claus oven" plants. n. d. In German.	2.00
215-234 PB L 70014	Experiments on the mixing process of flowing gases. Apr 19, 1937. In German.	2.00
235-272 PB L 70014	The conversion of methane into acetylene by incomplete combustion of methane or of mixtures containing methane. Dec 20, 1928. In German.	4.00
273-331 PB L 70014	Calculations of some organic equilibria on the basis of spectroscopic data. Nov 28, 1935. In German.	6.00
332-342 PB L 70014	The ammonia oxydation plant of the Mitteldeutsche Stickstoffwerke in Piesteritz. Aug 24, 1928. In German.	1.50

PB L 70014-S. DOCUMENTS CENTER, FRANKFURT/MAIN. Reports on the production of acetylene. (FIAT Microfilm Reel CC 212, Frames 1-342, abstract cards). 1926-1940. 23 p. Price: Microfilm-$1.00 - Photostat-$2.00

Brief abstracts of the individual items on the above reel CC 212, PB L 70014, prepared by FIAT personnel in Germany.

PB L 52012. GERMANY. REICHSAMT FÜR WIRTSCHAFTSAUSBAU. Chemische berichte March 1942. First meeting of the cooperative group for analytical chemistry, Friday, March 28, 1941. Mar 1942. 101 p. Price: Microfilm-$3.00 - Photostat-$7.00

The individual items are listed below and will be available as photostat copies only. The entire publication may be purchased in microfilm form for $3.00. Please include PB and page numbers when ordering individual items. In German.

Pages	Title	Price
144 PB L 52012	Instructions. In German. This page contains 9 administrative rules and instructions for the meetings of the cooperative groups to facilitate research for the "four-year plan." These meetings were sponsored by the "Reichsamt für Wirtschaftsausbau Berlin" (Reich office for economic development).	$1.00
145-146 PB L 52012	List of participants. In German. The names of the representatives of various governmental agencies, industrial enterprises, universities, etc., who were present at the meeting are listed.	1.00
147 PB L 52012	Opening remarks. In German. The purpose of the various cooperative groups is stated.	1.00
149-169 PB L 52012	WURZSCHMITT, B. (I. G. Farbenindustrie A.G., Ludwigshafen, Germany). Significance, problems, organization, and methodical development of analytical chemistry in industry. In German. A review of personal experiences during 18 yrs. of activity directing the analytical chemists in one of the largest industrial labs. in Germany, covering the analysis of almost everything used or prepd. in the chem. lab. with a staff of 85 chemists. The importance of semi-microchemical methods is stressed and the use of modern instruments. Various examples are given concerning the many-sided activity of this lab.--From Chemical Abstracts.	2.00
170-181 PB L 52012	LEONHARD, H. (E. Merck, Chem. Fabrik, Darmstadt, Germany). Analysis of medicinals. In German. In this review, the problems of a manufg. chemist engaged in the prepn. of medicinals are considered with respect to the analysis of individual compounds of both natural and synthetic origin, of medicines prepd. from vegetable or animal sources which do not represent a single chem. compd., and of prepns. of various kinds prepd. from the other 2 classes. The problem in Germany was particularly acute because the last edition of their pharmacopeia was published in 1929.--From Chemical Abstracts.	1.00
182-191 PB L 52012	BLUMRICH, K. (I. G. Farbenindustrie, Frankfurt am Main-Höchst, Germany). Chemical investigation of aliphatic compounds. In German. The increased production and use of compds. derived from C_2H_2 and other hydrocarbons has resulted in various changes in the technique of their testing. Here, various improvements that have been adopted by one of the largest chem. manufacturers in Germany are discussed. With unsatd. compds. the addn. of I, SCN, Br, and H serve to form compds. which can be recognized easily and serve for the identification and analysis of the original samples. With C_2H_2,	1.00

the formation of metal derivs. and condensation with maleic acid anhydride are often helpful. In the examn. of hydroxyl compds., acetylation by means of a mixt. of Ac_2O and pyridine is most used for the analysis but other treatments are mentioned. Methods for the identification and analysis of alkyl amines are reviewed. 17 references.--From Chemical Abstracts.

192-231
PB L 52012 ZINGGERMANN, WILHELM (I. G. Farbenindustrie A.G., Ludwigshafen, Germany). Automatic micro elementary chemical analysis in the industrial laboratory. In German. 3.00
Complete details are given concerning the equipment of an important modern industrial lab. and its operation with special attention to the microchem. detn. of C, H, O, and N in org. compds. The paper will be of interest to any large concern wishing to outfit a new chem. lab. with modern equipment. 61 references.--From Chemical Abstracts.

232-241
PB L 52012 KLINGER, PAUL (Fried. Krupp A.G., Essen, Germany). Chemical examination of iron and its alloys. In German. 1.00
A review, without details concerning the analytical procedures, of the work done at one of the largest steel plants in Germany. 16 references concern very modern methods.--From Chemical Abstracts.

242-244
PB L 52012 Discussion. In German. 1.00
The various problems arising during the discussion of the above papers and the critical remarks and the supplementary suggestions made are summarized.

1-24
PB L 52012 First supplement to Chemische Berichte March 1942. In German. 2.00
According to the preface (pp. 5-7) this supplement contains a collection of problems which the editor considers worthy of research in the universities. The 37 items belong to the following groups: Separation of mixtures, aliphatic chemistry, electrochemistry of organic compounds, catalytic hydrogenation of compounds which contain chlorine, higher alcohols, drying oils, analytical chemistry, operational procedures. Pages 21-24 contain official and administrative notes.

PB L 73564. I. G. FARBENINDUSTRIE A. G., GREISHEIM. A collection of laboratory reports. (FIAT Microfilm Reel R 20, Frames 7510-7932; Frames 7973-8332; and Frames 8377-8526). 1937-1944. 930 f. Price: Microfilm-$6.00 - Photostat-$93.00.
The documents reproduced on this FIAT microfilm reel cover the following compounds: Aliphatic hydrocarbons, gasoline, paraffin, oxo alcohols, fertilizers and agents for soil improvement, and vitamines and enzymes. Individual items are listed below and will be available as enlargement prints only. Please include PB and frame numbers when ordering particular documents from this reel. In German.

Frames	Title	Price
7510-7525 PB L 73564	Alkylation with aluminum chloride at low temperatures. Part I. Isobutane and n-butylene. By Vogel, 1944. In German.	$2.00
7526-7531 PB L 73564	Alkylation with aluminum chloride at low temperatures. Part II. Propylene and i-butane. By Vogel, 1944. In German.	1.50
7532-7536 PB L 73564	Separation of olefins and paraffins in gasoline and middle oils. By Mier, 1940. In German.	1.50
7537-7540 PB L 73564	Experiments with silicagel as a carrier for cobalt catalysts in the synthesis of gasoline from carbon monoxide and hydrogen. By Vorkoch, 1940. In German.	1.50
7541-7545 PB L 73564	Fuel gas for Diesel engines. By Jannek, 1940. In German.	1.50
7546-7551 PB L 73564	Experiments with the Fischer-synthesis at normal pressure. By Meisenheimer, 1938. In German.	1.50
7552-7561 PB L 73564	Production of paraffin from carbon monoxide and hydrogen. Experiments to explain the unfavorable outcome of a large scale experiment at Leuna. By Kotzschmar, 1939. In German.	1.50
7562-7570 PB L 73564	Experiments for the removal of organically bound sulfur from coke-oven gas. By Kotzschmar, 1939. In German.	1.50
7571-7580 PB L 73564	Conversion of a synthetic olefin to oxo alcohol. By Nienburg, 1941. In German.	1.50
7581-7588 PB L 73564	Experiments to explain the absorption of ointments. By V. Czetsch-Lindenwald, 1942. In German.	1.50
7589-7599 PB L 73564	Purification of Zeits or Karag paraffin by preliminary oxidation. By Harder, no date. In German.	1.50
7600-7614 PB L 73564	Cracking of paraffin of high molecular weight and of oxidation gatsch. By Nienburg, 1942. In German.	1.50
7615-7641 PB L 73564	High-grade lubricants from petroleum and coal products. By Zorn, 1938. In German.	3.00
7642-7653 PB L 73564	X-ray examinations to explain the structure of triphenyl methane dyes. By Krebs, 1943. In German.	1.50
7654-7697 PB L 73564.	Alcylation processes between unsaturated and saturated hydrocarbons. 1939-1941. In German.	4.50
7698-7706 PB L 73564	The oxo-reaction of cetene ($C_{16}H_{32}$). By Nienburg, 1940. In German.	1.50
7707-7714 PB L 73564	The possibility of producing branched paraffins (aviation gasoline). By Wolffhardt, 1941. In German.	1.50
7715-7754 PB L 73564	Production of first-run fatty acids on a technical scale. By Pilch and Schiller, 1942. In German.	4.00
7755-7794 PB L 73564	Experiments to explain the dependence of the activity and the mechanical properties of the γ-Al_2O_3 carriers and catalysts on their production processes. In German. n.d.	4.00
7795-7814 PB L 73564	The properties of different cellulose preparations used as feed for	

ruminants. By Claren, 1942. In German. 2.00

7815-7932 PB L 73564 The chemical technology of lubricants. By Zorn, 1938. In German. 13.00

7933-7972 PB L 73564 These frames are missing.

7973-7977 PB L 73564 In vitro test on the influence of the pH on the growth of vegetables. By Buser, 1944. In German. 1.50

7978-7981 PB L 73564 In vitro test on the influence of the pH on the mobility of manganese in an organic soil. By Pirzer, 1944. In German. 1.50

7982-7990 PB L 73564 Fertilization experiments with nitrates. By Linser, 1940. In German. 1.50

7991-8002 PB L 73564 Vegetation tests with calcium nitrate and sodium nitrate on beets. By Pfaff, 1937. In German. 1.50

8003-8018 PB L 73564 Determination of lactic acid in silage by means of chromo-sulfuric acid. By Pflug, 1937. In German. 2.00

8019-8039 PB L 73564 Relations between the absorption of mineral substances and the vitamin content of plants. By Pfaff, 1937. In German. 2.50

8040-8052 PB L 73564 Ground water conditions for the raising of intermediate crops. By Pfaff, 1937. In German. 1.50

8053-8060 PB L 73564 Absorption of boron and the prevention of mildew in barley. By Pfaff, 1937. In German. 1.50

8061-8078 PB L 73564 Experiments on the influence of magnesium fertilization on the quality of certain crops. By Pfaff, 1937. In German. 2.00

8079-8096 PB L 73564 Vegetation tests with slags. By Pfaff, 1937. In German. 2.00

8097-8105 PB L 73564 Electrical measurement of the fluctuations of the water content of soils. By Pfaff, 1937. In German. 1.50

8106-8122 PB L 73564 Ensilage of green fodder. By Pflug, 1937. In German. 2.00

8123-8132 PB L 73564 The influence of a varied supply of water and nitrogen on the formation of protein in four different kinds of barley. By Pfaff, 1937. In German. 1.50

8133-8146 PB L 73564 The influence of external factors on the activity of enzymes of plants. By v. Schönebeck, 1937. In German. 1.50

8147-8157 PB L 73564 The determination of nitrate nitrogen in the soil in the presence of calcium cyanamide. By Römer, 1937. In German. 1.50

8158-8167 PB L 73564 Experiments for the determination of the total nitrogen content in small quantities of agricultural products. By Roth, 1937. In German. 1.50

8168-8179 PB L 73564 Experiments on the fumigation of fruits with ethylene. By Losch, 1937. In German. 1.50

8180-8204 PB L 73564 Vegetation tests with various nitrogen calcium phosphates. By Pfaff, 1937. In German. 2.50

8205-8226 PB L 73564 Report on the effect of various humus fertilizers on vegetables. By Mappes, 1937. In German. 2.50

8227-8246 PB L 73564 Vegetation tests with lime-urea and other calcium containing fertilizers. By Pfaff, 1937. In German. 2.50

8247-8265 PB L 73564 The effect of various types of nitrogen as soil and top-dressing fertilizers for vegetables. By Mappes, 1937. In German. 2.00

8266-8278 PB L 73564 Key for the evaluation of silage samples. By Pflug, 1937. In German. 1.50

8279-8325 PB L 73564 Comparative nitrogen experiments of the experimental station Limburger Hof, carried out for many years. By Gross, 1938. In German. 5.00

8326-8332 PB L 73564 Fertilization experiments on vegetables to compare mixed fertilizers such as "Nitrophoska" and "Hakaphos Nen" with single fertilizers (nitro-chalk, super-phosphate, 40% potassium salt for fertilizing). By Mappes, 1938. In German. 1.50

8333-8376 PB L 73564 These frames are missing.

8377-8420 PB L 73564 Methods for the determination of the content of growth promoting substances in plants and parts of plants. By Linser, 1938. In German. 4.50

8421-8435 PB L 73564 Report on a fertilization experiment carried out in the garden of a settler. By Mappes, 1938. In German. 1.50

8436-8448 PB L 73564 Fertilization experiments with pine-trees. By Römer, 1938. In German. 1.50

8449-8458 PB L 73564 Vegetation experiments with a few calcium and magnesium phosphates and mixtures of superphosphate slags. By Pfaff, 1938. In German. 1.50

8459-8466 PB L 73564 Experiments for the fumigation of bananas with ethylene. By Losch, 1938. In German. 1.50

8467-8476 PB L 73564 The influence of the nitrogen content of barley grains on the development and the vitamin content of young plants. By Pfaff, 1938. In German. 1.50

8477-8485 PB L 73564 Simultaneous chemical determination of vitamin B 1 and cocarboxylase. By Roth, 1938. In German. 1.50

8486-8491 PB L 73564 Experiments on the fertilization of forests; examination of pine litter. By Römer, 1938. In German. 1.50

8492-8526 PB L 73564 The importance of trace elements for higher plants. By Pfeiffer, 1938. In German. 2.50

PB L 73564-S. I. G. FARBENINDUSTRIE A. G., GRIESHEIM. A collection of laboratory reports. (FIAT Microfilm Reel R 20, Frames 7810-7952; Frames 7973-8332, and Frames 8377-8526, abstract cards.) 1937-1944. 80 p. Price: Microfilm-$2.00 - Photostat-$6.00.

These are short abstracts of the items on reel R 20 (PB 73864), described above. They were prepared by FIAT abstracters in Germany.

ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES

Electronics

PB L 77838. DAVIDSON, D. and others. Low frequency Loran. (Mass Institute of Technology Radiation Lab Rept 1061). Dec 1946. 223p. Price: Microfilm-$5.00 - Photostat-$15.00

This summary technical report consists of five parts: Part I discusses the needs which prompted the development of the Low Frequency version of the Loran principle. A brief account is given of several months' operation by three stations on the East Coast of the United States and of the effort to provide LF Loran service in the Pacific. Part II describes the ground station equipment, much of which was used during trials on the East Coast. The transmitter is of a novel oscillator-amplifier design to take advantage of new concepts which ease the maintenance of synchronism and enhance the accuracy of the system. It is believed that adoption of these concepts is also essential to the improvement of existing Loran service. Part III gives the constants of the converters provided to permit LF Loran operation with any existing receiver-indicator. Part IV discusses the propagation of pulses at 180 Kc and gives the results of the experimental program conducted in the spring and summer of 1945. Part V abstracts the basic information on an Exciter unit which performs the same overall functions as the equipment described in Part II C and D. The text is supplemented by tables, photographs, charts, graphs, diagrams, and sketches.

*PB L 78257. GOODMAN, R. A. A highly sensitive D.C. controlling and measuring device. (FIAT Final Rept 954). Apr 1947. 83 p. Price: Mimeo-$2.25

A description is given of the design principles, constructional details and method of use of an amplifier by means of which continuous and slowly-varying currents can be detected, measured and applied to control functions. The apparatus is characterised by a maximum electrical sensitivity of the order of 10^{-17} watt and a high degree of freedom from disturbance by mechanical shock. Eight appendices, some of which are in German, are included.

PB L 80598. HANSON, R. O. Birch "flagship" model transcription reproducer. (Columbia Univ Div War Res Memo P37/M1009). Jul 1944. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00

This is a report of the performance of the U. S. Navy transcription reproducer known as the Birch "Flagship" Model, manufactured by Boetsch Bros., 221 E. 144th Street, New York, and sent to the New London Laboratory at the request of Dr. W.D. Neff of the training group to determine its adaptability for the reproduction of training records. Graphs and wiring diagram included.

PB L 80876. KRYTER, K. D. and others. Premodulation clipping in AM voice communication. (Harvard Univ Psycho-Acoustic Lab Rept PMR-16). Jan 1947. 7 p. Price: Microfilm-$1.00 - Photostat-$1.00

This report is a reprint from The Journal of the Acoustical Society of America, vol. 19, No. 1, 125-131, January, 1947. Articulation tests were conducted to assess the advantages of premodulating clipping in AM voice transmitters. The results show that a saving of as much as 14 decibels in carrier power can be achieved, without loss in intelligibility, if the speech wave is first subjected to 24 decibels of peak clipping and then reamplified by 24 decibels in order to obtain 100-percent peak modulation. Three obvious advantages result from this procedure: (1) the effective range of a given transmitter is increased, (2) overmodulation is permanently prevented, and (3) interference to communications on adjacent frequency channels is eliminated. Realization of this third advantage requires the introduction of a low-pass filter between the clipper and the point of modulation. Excessive amounts of premodulation clipping should be avoided whenever speech quality is an important consideration and whenever the microphone picks up large amounts of ambient noise. On the other hand, when communication is impaired by ambient noise and atmospheric static at the receiver location, large amounts of premodulation clipping serve to maximize intelligibility.

PB L 80662. U. S. SIGNAL CORPS. RADIO PROPAGATION UNIT. Calculation of sky-wave field intensities, maximum usable frequencies and lowest useful high frequencies. (Tech Rept 6). Mar 1947. 105 p. Price: Microfilm-$3.00-Photostat-$7.00

In this report methods of calculating sky-wave field intensities, maximum usable frequencies (MUFs), and lowest useful high frequencies (LUHFs) are shown for a frequency range of 2 to 30 megacycles. The distances are divided into three ranges for field intensity and LUHF calculations: short distances, 0 to 250 miles; intermediate distances, 250 to 2000 miles; and long distances, 2000 miles and greater. Nomographic solutions are given for problems involving the short and long distance ranges, while curves are used in the solution of problems covering the intermediate distance range.

PB L 80877. WIENER, FRANCIS M. Specifications for a standard pressure microphone. (Harvard Univ Psycho-Acoustic Lab Rept PMR-24). Feb 1947. 18 p. Price: Microfilm-$1.00 - Photostat-$2.00

The microphone described by this specification is a device activated by an acoustic input which can be described in terms of a sound pressure. This microphone is intended for use as a secondary standard for the measurement of sound pressure, and lends itself to calibration in absolute terms by the reciprocity method as specified in "Proposed American Standard Method for Calibration of Laboratory Microphones, Z24.4".[1] Charts and sketches are included.

Generators, Motors, Transmission, Distribution and Allied Equipment

PB L 75814. GUERITTE, T. J. Some aspects of the evolution of ideas concerning the selection of site for large thermic power stations. Sep 1946. 19 p. Price: Microfilm-$1.00 - Photostat-$2.00

Considerations affecting the selection of site include facilities for economical delivery of fuel, availability of great quantities of cool water, and proximity to a market for the electrical power. Photographs and diagrams are included. This paper was presented at the International Technical Congress in Paris.

* PB L 79587. KROHNE, ERICH and CALLIESS, H. Methods of transmitting 2,000,000 kilowatts of electric power 600 Kilometers. (FIAT Final Rept 1119). May 1947. 24 p. Price: Mimeo-$0.75

The report summarizes the results of an investigation made in 1941 at the direction of the German Office for Economic Development to determine the economic limits of a-c and d-c transmission by cable and overhead lines over long distances. Voltages of 220 kv, a-c; 400 kv, a-c; 650 kv, d-c; and 800 kv, d-c were considered. Tables are included covering (1) voltages, power factors, power losses, and overall efficiency; (2) limits of power and capacity utilized with uniform division of total load among transmitting systems; (3) estimated total and unit installation costs; (4) transmission costs for three annual times of utilization; (5) relative material requirements; and (6) specific material requirements.

* PB L 81289. KROHNE, ERICH. Quick calculation of A-C high voltage overhead lines. (FIAT Final Rept 1116). May 1947. 15 p. Price: Mimeo-$0.50

This report presents a new quick method of calculating high voltage A-C overhead transmission lines for distances from 200 to 1000 km. While the curves included apply only to the three types of conductors in common use in Germany, the method can be applied to other types of conductors without difficulty. Appendix I gives a bibliography; and Appendix II contains five diagrams.

PB L 21396-A3. U. S. AERONAUTICAL BOARD. Generators; electric tachometer, (with amendment no. 3, Apr. 10, 1947). (Army-Navy Aeronautical Specification AN-G-16a). Oct 1944. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
PB 21396 is listed in vol. 1, p. 1282.

PB L 21697-A. U. S. AERONAUTICAL BOARD. Switches; generator control relay (differential), (with amendment no. 1, May 1947). (Army-Navy Aeronautical Specification AN-S-42a). Jul 1946. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
PB 21697 is listed in vol. 1, p. 1283.

Miscellaneous

PB L 5588. DEUTSCHE INDUSTRIE-NORMEN, VERBAND DEUTSCHER ELEKTROTECHNIKER. German symbols for electrical engineering and power data. Oct 1946. 10 p. Price: Microfilm-$1.00 - Photostat-$1.00
This document contains tables 710 to 719, inclusive. These tables were obtained by the Utilities Section, T.I.I.D., O.T.S., in Germany, October 1946.

* PB L 78262. GOELZER, HENRY. Developments during the war in automotive ignition, particularly by the firm of Robert Bosch, G.m.b.H., Stuttgart. (FIAT Final Rept 947). Mar 1947. 48 p. Price: Mimeo-$1.25
Reviews the field of starting motors, generators, regulators associated with generators, ignition analyzers and magnetos, including descriptions of mechanical construction and giving significant electrical data. Seven appendixes include: list of German personnel interviewed; list of targets visited; bibliography; list of material evacuated; characteristic curves; and description of Bosch testing equipment.

PB L 26179-R2. U. S. AERONAUTICAL BOARD. Switch; momentary type toggle. (Revision of PB 26179, vol. 3, p. 593). (Army-Navy Aeronautical Standard AN 3026, rev.). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21698-A. U. S. AERONAUTICAL BOARD. Switches; push button and limit (with amendment no. 1, May 1947). (Army-Navy Aeronautical Specification AN-S-396). Aug 1945. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00

MACHINERY (EXCEPT ELECTRICAL)

PB L 73950. SCHULER WERKZEUGMASCHINENFABRIK, GOPPINGEN and OSRAM G.M.B.H., BERLIN, GERMANY. Parts lists and drawings of automatic lathes, punch presses and an extrusion lathe. (FIAT Microfilm Reel AI - 160, Frames 55798-56227, 56999-57135) 1930-1942. 764 f.
Price: Microfilm - $6.00 - Enlargement print - $76.50
This microfilm reel consist of parts lists and detail and assembly drawings for automatic lathes, punch presses and and extrusion press, as listed below. The individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
55798-55957 PB L 73950	Set of drawings for sectional punch press model Mfr. 1936-1938. In German.	$17.50
55958-56076 PB L 73950	Set of drawings for roller feed punch press model A.Tr. 1932-1937. In German.	12.00
56077-56143 PB L 73950	Set of drawings for PK spr/2 bilateral special extrusion press. 1934-1942. In German.	8.50
56144-56277 PB L 73950	Set of drawings for 4 spindle automatic lathe type A40 dsp. 1932-1939. In German.	10.00
56999-57135 PB L 73950	Detail and assembly drawings and parts lists for the Z.T. 18 twin-plate automatic lathe. 1930-1942. In German.	30.00

PB L 80621. U. S. WAR DEPARTMENT. Ordnance maintenance: Fuel pumps. (Tech Manual 9-1826A). Mar 1945. 112 p. Price: Microfilm-$3.00 - Photostat-$6.00

PB L 42656-S. WOODRUFF, WILLIAM M. Bevel gear cutting and bevel gear machinery in Germany. (Supplement to PB 42656). (FIAT Final Rept 928, Supp 1). May 1947. 7 p. Price: Mimeo-$0.25
This report supplements FIAT Final Report No. 928 in relation to the types of bevel gear machines and methods of cutting employed in Germany as compared to practice in the United States. Appendix I contains a list of German personnel interviewed; Appendix II a list of targets visited; and Appendix III a bibliography.

METALS AND METAL PRODUCTS

PB L 78207-S. BELL, W. C. and others. Examination of ingots, billets and heavy wall tubes for the production of roller and ball races. (Addendum no. 1 to PB 78207). (BIOS Final Rept 619, Addendum 1, Item 21). Sep 1945. 14 p. Price: Microfilm-$1.00 - Photostat-$1.00
This report deals with a metallurgical examination of specimen pieces of German heavy wall tubes and shows photographs of the steel ingots and rolled or forged billets described in Part III of the Main Tube Mission report, see PB 78207, vol. 6, p. 534, this Bibliography.

+PB L 78207-S2. BELL, W. C. and others. Examination of ingots, cast billets and seamless tubes and of runner brick used in bottom castings ingots and billets for seamless tube production. (Addendum no. 2 to PB 78207, vol. 6, p. 534). (BIOS Final Rept 619, Addendum 2, Item 21). Sep 1945. 24 p. Price: Microfilm-$1.00 - Photostat-$2.00
This report deals with metallurgical examination of cast steel ingots and billets used respectively by the Pilger and Push Bench seamless tube processes described in Part I of the main report. Chemical analysis and physical properties of a German Runner Brick are also given. Tables and illustrations are included.

+PB L 78289. FARRAR, JOHN F. P. Metal hose, pipe line compensators and metal expansion joints in Germany. (FIAT Final Rept 1078). Mar 1947. 7 p. Price: Mimeo-$0.25
This reports the developments in the manufacture of metal hose, pipe line compensators and metal expansion joints in

Germany. Hose of good quality is manufactured with more emphasis on welded types than in the United States. Pipe line compensators are highly developed, with emphasis on radial motion types as contrasted with axial motion expansion joints. Appendixes I and II include a list of German personnel interviewed and a list of targets visited, and Appendix III gives a list of documents evacuated.

PB L 70259. I. G. FARBENINDUSTRIE A.G., FRANKFURT/MAIN-GRIESHEIM. Correspondence concerning welding. (FIAT Microfilm Reel AA 41, Frames 997-2286) 1938-1945. 1289 f. Price: Microfilm $6.00 - Enlargement print $129.00

This reel, prepared by FIAT investigators in Germany, contains correspondence on metallurgical subjects and problems, particularly investigations of welding processes. Individual items are listed below and will be available as enlargement prints only. The entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
997 PB L 70259	Hard metal. Sep 8, 1943. In German.	1.50
998 PB L 70259	Welding. Aug 28, 1943. In German.	1.50
999-1062 PB L 70259	Welding. Aug 13, 1943. In German.	6.50
1063 PB L 70259	Hard metal. Jul 29, 1943. In German.	1.50
1064-1096 PB L 70259	Welding electrodes. Jul 27, 1943. In German.	3.50
1097-1101 PB L 70259	Milling cutters. Jul 24, 1943. In German.	1.50
1102-1126 PB L 70259	Milling cutters. Jul 21, 1943. In German.	2.50
1127-1129 PB L 70259	Welding. Jul 13, 1943. In German.	1.50
1130-1134 PB L 70259	Welding electrodes. Jul 12, 1943. In German.	1.50
1135-1187 PB L 70259	Milling cutters. Jul 8, 1943. In German.	5.50
1188-1202 PB L 70259	Welding electrodes. Jun 21, 1943. In German.	1.50
1203-1206 PB L 70259	Metal-alloys. Jun 17, 1943. In German.	1.50
1207-1220 PB L 70259	Milling cutters. Jun 7, 1943. In German.	1.50
1221-1222 PB L 70259	Welding of milling cutters. Jun 2, 1943. In German.	1.50
1223-1224 PB L 70259	Milling cutters. May 26 1943. In German.	1.50
1225-1242 PB L 70259	Welding electrodes. May 22, 1943. In German.	2.00
1243-1340 PB L 70259	Milling cutters. May 20, 1943. In German.	10.00
1341-1344 PB L 70259	Welding. May 19, 1943. In German.	1.50
1345-1385 PB L 70259	Milling cutters. May 12, 1943. In German.	4.50
1386-1424 PB L 70259	Welding electrodes. May 3, 1943. In German.	4.00
1425-1435 PB L 70259	Milling cutters. Mar 24, 1943. In German.	1.50
1436-1438 PB L 70259	Welding. Mar 17, 1943. In German.	1.50
1439-1443 PB L 70259	Welding electrodes. Mar 1, 1943. In German.	1.50
1444 PB L 70259	Welding electrodes. Feb 28, 1943. In German.	1.50
1445-1446 PB L 70259	Welding electrodes. Feb 25, 1943. In German.	1.50
1447 PB L 70259	Tools. Feb 25, 1943. In German.	1.50
1448 PB L 70259	Welding electrodes. Feb 25, 1943. In German.	1.50
1449-1482 PB L 70259	Milling cutters. Feb 19, 1943. In German.	3.50
1483 PB L 70259	Welding electrodes. Dec 16, 1942. In German.	1.50
1484-1491 PB L 70259	Welding electrodes. Dec 7, 1942. In German.	1.50
1492-1493 PB L 70259	Welding electrodes. Nov 26, 1942. In German.	1.50
1494 PB L 70259	Welding. Nov 24, 1942. In German.	1.50
1495 PB L 70259	Welding electrodes. Nov 24, 1942. In German.	1.50
1496-1498 PB L 70259	Welding electrodes. Nov 20, 1942. In German.	1.50
1499-1500 PB L 70259	Tools. Nov 18, 1942. In German.	1.50
1501 PB L 70259	Hard-metal alloys. Nov. 17, 1942. In German.	1.50
1502 PB L 70259	Welding. Nov 16, 1942. In German.	1.50
1503-1505 PB L 70259	Welding. Nov. 12, 1942. In German.	1.50
1506 PB L 70259	Tools. Nov 7, 1942. In German.	1.50
1507-1510 PB L 70259	Welding electrodes. Nov 4, 1942. In German.	1.50
1511-1522 PB L 70259	Milling cutters. Oct 3, 1942. In German.	1.50
1523 PB L 70259	Welding alloys. Mar 24, 1942. In German.	1.50
1524-1547 PB L 70259	Welding. Nov 17, 1941. In German.	4.50
1548-1551 PB L 70259	Welding alloys. Oct 25, 1940. In German.	1.50
1552-1556 PB L 70259	Welding alloys. Oct 4, 1940. In German.	1.50
1557-1560 PB L 70259	Welding alloys. Aug 17, 1940. In German.	1.50
1561-1562 PB L 70259	Welding. n. d. In German.	1.50
1563-1567 PB L 70259	Welding electrodes. May 5, 1944. In German.	1.50
1566-1569 PB L 70259	Welding electrodes. May 5, 1944. In German.	1.50
1570-1594 PB L 70259	Tools. Mar 2, 1944. In German.	2.50
1595-1596 PB L 70259	Welding electrodes. Feb 28, 1944. In German.	1.50
1597-1598 PB L 70259	Welding electrodes. Dec 31, 1943. In German.	1.50

1599-1617 PB L 70259 — Welding electrodes. Dec 16, 1943. In German. 2.00

1618 PB L 70259 — Tools. Dec 10, 1943. In German. 1.50

1619 PB L 70259 — Welding electrodes. Dec 10, 1943. In German. 1.50

1620-1621 PB L 70259 — Tools. Dec 8, 1943. In German. 1.50

1622-1640 PB L 70259 — Welding electrodes. Dec 8, 1943. In German. 2.00

1641-1656 PB L 70259 — Tools. Dec 3, 1943. In German. 2.00

1657 PB L 70259 — Tools. Dec 3, 1943. In German. 1.50

1658-1662 PB L 70259 — Welding electrodes. Nov 26, 1943. In German. 1.50

1663-1668 PB L 70259 — Tools. Nov 23, 1943. In German. 1.50

1669-1672 PB L 70259 — Tools. Nov 19, 1943. In German. 1.50

1673-1674 PB L 70259 — Welding. Nov 15, 1943. In German. 1.50

1675 PB L 70259 — Hard metal alloys. Nov 17, 1943. In German. 1.50

1676-1715 PB L 70259 — Welding electrodes. Nov 15, 1943. In German. 4.00

1716-1717 PB L 70259 — Tools. Oct 18, 1943. In German. 1.50

1718-1763 PB L 70259 — Tools. Nov 9, 1943. In German. 5.00

1764-1766 PB L 70259 — Welding electrodes. Oct 29, 1943. In German. 1.50

1767-1781 PB L 70259 — Tools. Oct 22, 1943. In German. 1.50

1782-1808 PB L 70259 — Welding electrodes. Oct 20, 1943. In German. 3.00

1809-1813 PB L 70259 — Tools. Oct 15, 1943. In German. 1.50

1814-1824 PB L 70259 — Welding electrodes. Feb 16, 1945. In German. 1.50

1825 PB L 70259 — Hard metal alloys. May 12, 1943. In German. 1.50

1826 PB L 70259 — Hard metal alloys. Nov 17, 1943. In German. 1.50

1827-1828 PB L 70259 — Welding. Aug 16, 1943. In German. 1.50

1829-1835 PB L 70259 — Hard metal alloys. Nov 20, 1939. In German. 1.50

1836-1843 PB L 70259 — Hard metal alloys. Dec 15, 1939. In German. 1.50

1844-1852 PB L 70259 — Hard metal alloys. Dec 2, 1939. In German. 1.50

1853-1859 PB L 70259 — Welding electrodes. Apr 2, 1941. In German. 1.50

1860 PB L 70259 — Hard metal alloys. Jul 6, 1943. In German. 1.50

1861-1862 PB L 70259 — Hard metal alloys. Apr 21, 1943. In German. 1.50

1863-1870 PB L 70259 — Welding alloys. Dec 9, 1941. In German. 1.50

1871-1876 PB L 70259 — Welding alloys. Jul 25, 1940. In German. 1.50

1877-1880 PB L 70259 — Welding alloys. May 9, 1940. In German. 1.50

1881-1898 PB L 70259 — Welding electrodes. Nov 22, 1944. In German. 2.00

1899 PB L 70259 — Welding electrodes. Oct 23, 1944. In German. 1.50

1900-1901 PB L 70259 — Welding electrodes. Sep 7, 1944. In German. 1.50

1902-1905 PB L 70259 — Welding technology. Sep 1944. In German. 1.50

1906-1908 PB L 70259 — Welding electrodes. Aug 30, 1944. In German. 1.50

1909-1912 PB L 70259 — Welding electrodes. Aug 5, 1944. In German. 1.50

1913-1915 PB L 70259 — Welding electrodes. Aug 5, 1944. In German. 1.50

1916-1949 PB L 70259 — Welding electrodes. Jul 5, 1944. In German. 3.50

1950-1962 PB L 70259 — Tools. Sep 1, 1943. In German. 1.50

1962A-1987 PB L 70259 — Welding electrodes. Feb 18, 1944. In German. 3.00

1988-1995 PB L 70259 — Welding electrodes. Sep 11, 1943. In German. 1.50

1996 PB L 70259 — Hard metal alloys. Jul 29, 1943. In German. 1.50

1997-1998 PB L 70259 — Hard metal alloys. Jun 24, 1943. In German. 1.50

1999-2007 PB L 70259 — Hard metal alloys. Jun 6, 1942. In German. 1.50

2008 PB L 70259 — Hard metal alloys. Oct 14, 1944. In German. 1.50

2009-2021 PB L 70259 — Welding electrodes. Jul 27, 1944. In German. 1.50

2022-2030 PB L 70259 — Welding electrodes. Feb 15, 1944. In German. 1.50

2031-2048 PB L 70259 — Welding electrodes. Feb 4, 1944. In German. 2.00

2049-2051 PB L 70259 — Hard metal alloys. Jan 10, 1944. In German. 1.50

2052 PB L 70259 — Hard metal alloys. Nov 17, 1943. In German. 1.50

2053 PB L 70259 — Welding electrodes. Nov 5, 1943. In German. 1.50

2054 PB L 70259 — Hard metal alloys. Sep 8, 1943. In German. 1.50

2055-2066 PB L 70259 — Welding electrodes. Aug 9, 1943. In German. 1.50

2067-2074 PB L 70259 — Welding electrodes. Oct 12, 1942. In German. 1.50

2075-2076 PB L 70259 — Hard metal alloys. Oct 9, 1942. In German. 1.50

2077-2082 PB L 70259 — Welding electrodes. Sep 15, 1942. In German. 1.50

2083-2095 PB L 70259 — Welding. Sep 11, 1942. In German. 1.50

2096-2116 PB L 70259 — Tools. Mar 14, 1944. In German. 2.50

2117-2134 PB L 70259 — Tools. Aug 13, 1943. In German. 2.00

2135 PB L 70259 — Tools. Aug 13, 1943. In German. 1.50

2136 PB L 70259 — Tools. Aug 12, 1943. In German. 1.50

2137 PB L 70259 — Tools. Aug 11, 1943. In German. 1.50

2138 PB L 70259 — Tools. Aug 11, 1943. In German. 1.50

2139 PB L 70259 — Tools. Jul 19, 1943. In German. 1.50

2140 PB L 70259 — Tools. Jul 19, 1943. In German. 1.50

2141 PB L 70259 — Tools. Jul 13, 1943. In German. 1.50

2142-2143 PB L 70259 — Tools. Jul 13, 1943. In German. 1.50

2144 PB L 70259 — Tools. Jul 6, 1943. In German. 1.50

2145 PB L 70259 — Tools. Jul 5, 1943. In German. 1.50

2146 PB L 70259 — Tools. Jul 1, 1943. In German. 1.50

2147-2148 PB L 70259 — Tools. Jun 25, 1943. In German. 1.50

2149-2150 PB L 70259 — Tools. Jun 5, 1943. In German. 1.50

2151-2153 PB L 70259 — Tools. May 26, 1943. In German. 1.50

2154-2155 PB L 70259 — Tools. May 21, 1943. In German. 1.50

2156-2157 PB L 70259 — Tools. May 6, 1943. In German. 1.50

2158 PB L 70259 — Tools. May 6, 1943. In German. 1.50

2159 PB L 70259 — Tools. Apr 27, 1943. In German. 1.50

2160 PB L 70259 — Tools. Apr 21, 1943. In German. 1.50

2161 PB L 70259 — Tools. Jan 8, 1943. In German. 1.50

2162 PB L 70259 — Tools. Apr 3, 1943. In German. 1.50

2163 PB L 70259 — Tools. Apr 3, 1943. In German. 1.50

2164-2166 PB L 70259 — Tools. Mar 19, 1943. In German. 1.50

2167 PB L 70259 — Tools. Mar 16, 1943. In German. 1.50

2168 PB L 70259 — Tools. Mar 4, 1943. In German. 1.50

2169-2171 PB L 70259 — Tools. Feb 24, 1943. In German. 1.50

2172-2173 PB L 70259 — Tools. Jan 8, 1943. In German. 1.50

2174 PB L 70259 — Tools. Feb 11, 1943. In German. 1.50

2175-2176 PB L 70259 — Tools. Feb 2, 1943. In German. 1.50

2177 PB L 70259 — Tools. Jan 6, 1943. In German. 1.50

2178-2179 PB L 70259 — Tools. Nov 27, 1942. In German. 1.50

2180 PB L 70259 — Tools. Oct 24, 1942. In German. 1.50

2181 PB L 70259 — Tools. Nov 21, 1942. In German. 1.50

2182 PB L 70259 — Tools. Sep 23, 1942. In German. 1.50

2183-2184 PB L 70259 — Tools. Nov 4, 1943. In German. 1.50

2185 PB L 70259 — Welding. Sep 21, 1943. In German. 1.50

2186 PB L 70259 — Welding method. Aug 16, 1943. In German. 1.50

2187 PB L 70259 — Welding method. Jul 31, 1943. In German. 1.50

2188 PB L 70259 — Welding method. Aug 5, 1943. In German. 1.50

2189 PB L 70259 — Welding method. Jul 22, 1943. In German. 1.50

2190 PB L 70259 — Welding method. Apr 29, 1943. In German. 1.50

2191-2193 PB L 70259 — Welding method. Mar 13, 1943. In German. 1.50

2194 PB L 70259 — Welding method. Mar 4, 1943. In German. 1.50

2195 PB L 70259 — Hard metal alloys. Feb 26, 1943. In German. 1.50

2196 PB L 70259 — Hard metal alloys. Feb 22, 1943. In German. 1.50

2197 PB L 70259 — Tools. Feb 10, 1943. In German. 1.50

2198-2199 PB L 70259 — Tools. Mar 9, 1943. In German. 1.50

2200 PB L 70259 — Hard metal alloys. Feb 2, 1943. In German. 1.50

2201 PB L 70259 — Welding method. Jan 20, 1943. In German. 1.50

2202 PB L 70259 — Tools. Jan 9, 1943. In German. 1.50

2203 PB L 70259 — Welding. Nov 30, 1942. In German. 1.50

2204 PB L 70259 — Tools. Nov 23, 1942. In German. 1.50

2205-2207 PB L 70259 — Tools. Nov 2, 1942. In German. 1.50

2208-2209 PB L 70259 — Welding electrodes. Dec 22, 1944. In German. 1.50

2210 PB L 70259 — Reducing valve. Nov 1, 1944. In German. 1.50

2211 PB L 70259 — Welding electrodes. Dec 1, 1944. In German. 1.50

2212-2213 PB L 70259 — Reduction valves. Dec 6, 1944. In German. 1.50

2214-2215 PB L 70259 — Valves. May 23, 1941. In German. 1.50

2216-2218 PB L 70259 — Valves. Sep 26, 1940. In German. 1.50

2219-2223 PB L 70259 — Acetylene plants. n. d. In German. 1.50

2224-2226 PB L 70259 — Acetylene plants. Dec 18, 1940. In German. 1.50

2227-2233 PB L 70259 — Acetylene long-distance line. Dec 10, 1940. In German. 1.50

2234-2238 PB L 70259 — Acetylene-plants. Aug 16, 1939. In German. 1.50

2239-2243 PB L 70259 — Cut-off valves. Aug 28, 1940. In German. 1.50

2244-2251 PB L 70259 — Valves. Aug 16, 1940. In German. 1.50

2252-2253 PB L 70259 — Bursting disks. Jun 14, 1940. In German. 1.50

2254 PB L 70259 — Bursting disks. Jun 10, 1940. In German. 1.50

2255 PB L 70259 — Safety disks. Nov 7, 1938. In German. 1.50

2256 PB L 70259 — Bursting disks. Feb 1, 1938. In German. 1.50

2257-2261 PB L 70259 — Bursting disks. Jan 18, 1938. In German. 1.50

2262 PB L 70259 — Acetylene. Nov 9, 1942. In German. 1.50

2263 PB L 70259 — Acetylene. Oct 15, 1942. In German. 1.50

2264 PB L 70259 — Acetylene. Jun 26, 1942. In German. 1.50

2265 PB L 70259 — Acetylene. Apr 21, 1942. In German. 1.50

2266 PB L 70259 — Acetylene. Apr 16, 1942. In German. 1.50

2267 PB L 70259 — Acetylene. Apr 14, 1942. In German. 1.50

2268 PB L 70259 — Acetylene. Mar 30, 1942. In German. 1.50

2269 PB L 70259 — Acetylene. Mar 27, 1942. In German. 1.50

2270 PB L 70259 — Acetylene. Mar 25, 1942. In German. 1.50

2271-2272 PB L 70259 — Acetylene. Oct 20, 1941. In German. 1.50

2273 PB L 70259 — Acetylene. Oct 17, 1941. In German. 1.50

2274-2275 PB L 70259 — Liquid air. Oct 15, 1941. In German. 1.50

2276 PB L 70259 — Liquid gases. n. d. In German. 1.50

2277-2278 PB L 70259 — Welding technique. May 3, 1941. In German. 1.50

2279-2280 PB L 70259 — Acetylene. Apr 28, 1941. In German. 1.50

2281 PB L 70259 — Acetylene. Mar 26, 1941. In German. 1.50

2282-2283 PB L 70259 — Long distance pipe-line for acetylene. Dec 11, 1940. In German. 1.50

2284 PB L 70259 — Acetylene. May 30, 1938. In German. 1.50

2285-2286 PB L 70259 — Acetylene. Jan 31, 1938. In German. 1.50

PB L 70259-S. I. G. FARBENINDUSTRIE A. G., FRANKFURT, MAIN-GRIESHEIM. Correspondence concerning welding. (FIAT Microfilm Reel AA-41, Frames 997-2286, abstract cards). 1938-1945. 203 p. Price: Microfilm-$5.00 - Photostat-$14.00.
Brief abstracts, prepared by FIAT personnel in Germany, of the reports listed above on microfilm reel AA-41, PB L 70259.

PB L 74063. I. G. FARBENINDUSTRIE, A. G. BITTERFELD, GERMANY. Research on aluminum and magnesium alloys. (FIAT Microfilm Reel CC 149, Frames 4801-5600). 1938-1944. 800 f. Price: Microfilm-$6.00 - Enlargement print-$80.00
This FIAT microfilm reel consists of 93 reports on aluminum and magnesium alloys. Many of the reports are illegible. The legible reports are listed below and will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this reel. In German.

Frames	Title	Price
4801-4803 PB L 74063	Low alloyed Hy 18. (Charts without text). n. d. In German.	$1.50
4804-4807 PB L 74063	High temperature stability of AZ 91 chill castings with low copper contents. Jan 19, 1940. In German.	1.50
4808-4810 PB L 74063	Effect of cutting tools on Hy 51 sand castings. Jan 22, 1940. In German.	1.50
4811-4814 PB L 74063	Experiments with Hy 64 chill castings. Jan 22, 1940. In German.	1.50
4815-4846 PB L 74063	Illegible.	
4847-4851 PB L 74063	Blister and crack formation in Igedur stampings. Jan 23, 1940. In German.	1.50
4852-4868 PB L 74063	The "elomag" layer as a lacquer base. Jan. 29, 1940. In German.	2.00
4869-4889 PB L 74063	Illegible.	
4890-4897 PB L 74063	Fatigue strength of propeller roots of Igedur 26. Feb 1, 1940. In German.	1.50
4898-4925 PB L 74063	On the development of Ce-containing cast magnesium alloys. Feb 27, 1940. In German.	3.00
4926-4931 PB L 74063	Bending tests with a Ju88 aircraft engine support. Feb 14, 1940. In German.	1.50
4932-4938 PB L 74063	Fatigue strength properties in propellers of AZ 855 from 1939 production. Mar 3, 1940. In German.	1.50
4939-4945 PB L 74063	Comparison tests of 1 mm sheet metal plated with Igedur 26. Mar 12, 1940. In German.	1.50
4946-4985 PB L 74063	Illegible.	

4986-5001 PB L 74063 — Influence of various cooling conditions and heat treatments on the strength properties of electron stampings. Apr 4, 1940. In German. 2.00

5002-5053 PB L 74063 — Illegible.

5054-5056 PB L 74063 — Appearance of corrosion in hydronalium sheets. Jan 24, 1940. In German. 1.50

5057-5059 PB L 74063 — Appearance of corrosion in Hy 7 sheets. Mar 27, 1940. In German. 1.50

5060-5064 PB L 74063 — Illegible.

5065-5068 PB L 74063 — On the quantitative determination of low beryllium contents in hydronalium. May 10, 1940. In German. 1.50

5069-5095 PB L 74063 — Illegible.

5096-5112 PB L 74063 — Cast Mg-Zr alloys with Zn, Cd, and Ce admixtures. (Electron alloys). Nov 7, 1938. In German. 2.00

5113-5116 PB L 74063 — Illegible.

5117-5123 PB L 74063 — Properties of Mg-Zr alloys produced from Zr compounds and Mg. Dec 2, 1938. In German. 1.50

5124-5127 PB L 74063 — Methods for producing Zr alloys. May 31, 1938. In German. 1.50

5128-5131 PB L 74063 — Preliminary survey on the properties of Zr alloys. May 31, 1938. In German. 1.50

5132-5133 PB L 74063 — Preliminary Mg-Zr phase diagram. n. d. In German. 1.50

5134 PB L 74063 — Method for increasing the zirconium content in alloys by means of $K_2 Zr Cl_6$. Oct 20, 1938. In German. 1.50

5135-5141 PB L 74063 — Heat treatment of cast Mg-Zr alloys containing Zr and Cd. Nov 11, 1938. In German. 1.50

5142-5155 PB L 74063 — Illegible.

5156-5159 PB L 74063 — High temperature stability of E664 - E673 test alloys. Jun 1, 1938. In German. 1.50

5160-5190 PB L 74063 — Illegible.

5191-5195 PB L 74063 — Investigation of Italian patent No. 384523: "Process for increasing the corrosion re...stance of magnesium alloys. In German. 1.50

5196-5199 PB L 74063 — Illegible.

5200-5205 PB L 74063 — Revision of strength factors of Hy 31 alloy. Jul 13, 1938. In German. 1.50

5206-5213 PB L 74063 — Banded structure and capacity for anodic oxidation (light metals). Jul 27, 1938. In German. 1.50

5214-5219 PB L 74063 — Illegible.

5220-5231 PB L 74063 — On the temper-sensitivity of various hydronalium alloys. Jan 8, 1938. In German. 1.50

5232-5236 PB L 74063 — Investigation of boring oils as to acid content and inflammability. Jan 8, 1938. In German. 1.50

5237-5240 PB L 74063 — Effect of radiation of the flexural fatigue strength of electron and hydronalium sheet metals. Feb 7, 1938. In German. 1.50

5241-5253 PB L 74063 — Illegible.

5254-5255 PB L 74063 — Resistance of electron to various fuels and fuel oils. Mar 29, 1938. In German. 1.50

5256-5274 PB L 74036 — Hydronalium and electron bearing alloys. Feb 10, 1938. In German. 2.00

5275-5280 PB L 74036 — Temper tests on sheet hydronalium. Mar 1, 1938. In German. 1.50

5281-5292 PB L 74036 — On increasing the aluminum or zinc content of AZ855 forging alloy. Nov 28, 1938. In German. 1.50

5293-5297 PB L 74036 — Alternate bending strength of Igedur 26. Mar 25, 1938. In German. 1.50

5298-5337 PB L 74036 — High-temperature stability of cast electron alloys. Mar 11, 1938. In German. 4.50

5338-5352 PB L 74036 — The relationship between intercrystalline corrosion and P_H value as investigated in Al-Mg alloys. Mar 27, 1938. In German. 1.50

5353-5378 PB L 74036 — Potential measurements on Al-Mg, Al-Cu, and Al-Zn alloys in 3% NaCl solution. Apr 5, 1938. In German. 3.00

5379-5380 PB L 74036 — "Bumbal" process of Dr. M. Schenk, (protective coating). Mar 21, 1938. In German. 1.50

5381-5389 PB L 74036 — Investigation of Ce-containing AM 503 stampings. Mar 22, 1938. In German. 1.50

5390 PB L 74036 — Investigations of sand-cast silumin. Mar 22, 1938. In German. 1.50

5391-5392 PB L 74036 — Investigation of an English etching process. Mar 21, 1938. In German. 1.50

5393-5397 PB L 74036 — Precipitation hardening of sand-cast Al-Mg Si. Mar 19, 1938. In German. 1.50

5398-5413 PB L 74036 — High temperature stability of malleable electron alloys. Mar 29, 1938. In German. 2.00

5414-5426 PB L 74036 — Resistance of electron sheet metal to various corrosive agents. Mar 30, 1938. In German. 1.50

5427-5433 PB L 74036 — Thermal fatigue strength of cast-electron alloys. Apr 4, 1938. In German. 1.50

5434-5442 PB L 74036 — Illegible.

5443-5451 PB L 74036 — Corrosion tests of ABK, AZ91 and AZ9 alloys with various Cu-contents. Apr 7, 1938. In German. 1.50

5452-5455 PB L 74036 — Tests of AM503 with Ca-admixture. Apr 28, 1938. In German. 1.50

5456-5459 PB L 74063 — Surface protection of electron by the "Elomag" process. Apr 12, 1938. In German. 1.50

5460-5466 PB L 74063 — Investigations of hydronalium seaplane floats. Apr 13, 1938. In German. 1.50

5467-5470 PB L 74036 — Influence of the type of degreasing on the adhesive resistance and corrosion of lacquered electron and hydronalium alloys. Apr 25, 1938. In German. 1.50

5471-5478 PB L 74063 — Influence of a calcium admixture on the strength properties of various A9Y test bars. May 16, 1938. In German. 1.50

5479-5481 PB L 74036 — Test of the high temperature stability of sand cast Hy 71 alloy. May 9, 1938. In German. 1.50

5482-5494 PB L 74036 — Flexural and flanging capacity (measurements). May 5, 1938. In German. 1.50

5495-5504 PB L 74036 — Comparative tests of AZY and A9Y alloys. May 18, 1938. In German. 1.50

5505-5534 PB L 74036 — Be-admixtures in electron alloys. Jun 2, 1938. In German. 3.00

5535-5546 PB L 74036 — On the hot forming properties of Al-Mg-Cu-Zn alloys. Jun 3, 1938. In German. 1.50

5547-5556 PB L 74036 — Fatigue strength of various gear-flange couplings of Igedur 26. Jun 20, 1944. In German. 1.50

5557-5582 PB L 74036 — Comparative fatigue strength of various gear-flange couplings of Hy 43 and Igedur 26. May 26, 1944. In German. 3.00

5583-5589 PB L 74036 — On protecting materials for melting Mg-alloys (admixtures for the molding sand). May 25, 1944. In German. 1.50

5590-5593 PB L 74036 — Stress-corrosion in Hy 43. May 22, 1944. In German. 1.50

5594-5600 PB L 74036 — Notch sensitivity and stress-corrosion in Hy 43. May 5, 1944. In German. 1.50

* PB L 78261. KREBS, HEINRICH L. Sintered iron shell rotating bands. (FIAT Final Rept 979). War 1947. 10 p. Price: Mimeo-$0.25
This report deals with the manufacturing of iron shell rotating bands by the powder metallurgy process. Special consideration is given to the selection of iron powder and the pressing of the rings in such a manner as to obtain a sufficient porosity in the ring material for the absorption of a lubricant. Appendix I gives a list of German personnel interviewed; Appendix II a list of factories visited; and Appendix III contains a bibliography.

PB L 80725. ROOP, W. P. and CARRIGAN, HELEN I. Properties of medium steel at high rates of loading. (David W. Taylor Model Basin Rept 503). Jun 1943. 42 p. Price: Microfilm-$1.00 - Photostat-$3.00
The history of impact testing is briefly stated, with references, and two reports by the Massachusetts Institute of Technology are reviewed in some detail. The idea of true stress and true strain and MacGregor's work in this field are discussed at length. Other sources of information are also drawn upon. Interest is centered on the plastic absorption of energy and it is noted that great benefit would accrue from any practice that would increase the capacity of a ship structure for plastic deformation before rupture. Appendix gives formulas for true plastic strain. Tables, charts and sketches are included.

* PB L 81285. SCHEMPP, REINHOLD. Review of centrifugal casting methods. (FIAT Final Rept 1161). May 1947. 4 p. Price: Mimeo-$0.25
Operations at the Budernsche Eisenwerke at Wetzlar, which with the exception of coal, are entirely self sustained, are now confined to the making of centrifugally cast iron pipe for water and gas lines. The casting equipment is of the horizontal type with an inclination of about four percent per meter, and is practically automatic. The molds are of chromium-molybdenum steel, water-cooled, and are used without a refractory lining or coating. Pipe sizes range from 40 to 500 mm. inside diameter, three to six meters in length and wall thicknesses of four to 16 mm. In accordance with the desired wall thickness the rotating speed is varied from 420 to 1050 r.p.m. by the use of variable speed D. C. motors. During the war gun tubes were made, but the vertical type of casting equipment was used for this work. Apparently large scale production was not attained.

PB L 74282. TECHNISCHE HOCHSCHULE, BRAUNSCHWEIG, GERMANY. Metallurgical research on steel and alloys (FIAT Microfilm Reel E-143, Frames 1-600) 1941-1946. 600 f. Price: Microfilm - $6.00 - Enlargement prints-$60.00
This reel consisting of five treatises was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-178 PB L 74282	Corrosion investigation of boiler materials by Kassel, Hermann. In German.	$18.00
179-277 PB L 74282	Structure formation of iron, copper and copper iron alloys with carbon contents up to 0.6% by Kritzler, G. and Maushake, U. In German.	10.00
278-365 PB L 74282	Influence of heat treatment in the continuous annealing furnace with regard to properties of variously pretreated deep drawing type strip steel by Schauff, Erich. In German.	9.00
366-474 PB L 74282	Research of the diffusion process between alloyed steel and copper at manufacturing of compound material by Götschenber, Wilhelm. In German.	11.50
475-600 PB L 74282	The sectional tube as a new construction element considering behavior under internal and external pressure by Hormann, Erich. In German.	13.00

PB L 74463. VEREINIGTE ALUMINIUM WERKE A.G., LAUTAWERK/LAUSITZ. Metallurgical processes concerning aluminum and its alloys. (FIAT Microfilm reel G-8, Frames not numbered correctly.) 1935-1942. 420 f.
Price: Microfilm - $6.00 - Enlargement prints - $42.00
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
12612 PB L 74463	Cancelled	
12613-12636 PB L 74463	Behavior of blank and surface treated pure aluminum with mixtures of various composition and concentration. In German.	$1.50
12637-12638 PB L 74463	Investigation of "Resinol" with regard to Al and its alloys. In German.	1.50
12639-12643 PB L 74463	Annealing tank of aluminum. In German.	1.50
12644-12647 PB L 74463	Cancelled	
12648-12664 PB L 74463	Pretreatment of electrolytic condenser foils. In German.	1.50
12665-12670 PB L 74463	Processing of alloys containing silicon by means of air separation. In German.	1.50
12671-12673 PB L 74463	Cancelled	
12674-12684 PB L 74463	Structure of electrolytically produced aluminum oxide. In German.	1.50
12685-12686 PB L 74463	Cancelled	
12687-12691 PB L 74463	Macroscopic photographs of alumina. In German.	1.50
12692-12702 PB L 74463	Exhaust suction installation "Ofenhaus 3, Innwerk." In German.	1.50
12703-12706 PB L 74463	Production of aluminum and aluminum silico alloys under transformation of aluminum fluoride. In German.	1.50
12707-12739 PB L 74463	Cancelled	
12740-12742 PB L 74463	The influence of hardness of rolled aluminum on the degree of purity. In German.	1.50
12743 PB L 74463	Cancelled	
12744-12748 PB L 74463	Tests of removing undesirable parts of Al scrap. In German.	1.50
12749-12756 PB L 74463	Production of impervious surfaces free of pores of thick walled sand casting parts. In German.	1.50
12757-12800 PB L 74463	Missing	
12801-12808 PB L 74463	Cancelled	
12809-12815 PB L 74463	Testing mechanical properties and stability toward acids of 13 different protective films. In German.	1.50
12816-12821 PB L 74463	Torn aluminum wire from a lightning rod. In German.	1.50
12822-12823 PB L 74463	The influence of high lacquer burning temperatures on the tensile strength of tempered Al alloys. In German.	1.50
12824-12833 PB L 74463	The behavior of lacquer films on aluminum sheets. In German.	1.50
12834 PB L 74463	Cancelled	
12835-12841 PB L 74463	Casting tests with EC 138 alloy. In German.	1.50
12842-12843 PB L 74463	Testing colorless lacquers by weathering. In German.	1.50
12844-12846 PB L 74463	Causes for the formation of bubbles on Al vessels due to the pyrocal process. In German.	1.50
12847-12857 PB L 74463	Cancelled	
12858-12864 PB L 74463	Dependence of anodically produced oxidic layers on the structure of aluminum alloys. In German.	1.50
12865-12877 PB L 74463	Cancelled	
12878-12879 PB L 74463	Influence of annealing time on mechanical technological properties of zinc alloy foils. In German.	1.50
12880-12885 PB L 74463	Cancelled	
12886-12896 PB L 74463	Behavior of structural parts separated from pure aluminum at deformation. In German.	1.50
12897-12906 PB L 74463	Casting conditions for the production of pressed castings #1 to be oxydized. In German.	1.50
12907-12909 PB L 74463	Plating test in the "Kraftwerk-Walzwerk" and at the "Rhebag". In German.	1.50
12910-12913 PB L 74463	Corroded light metal water faucet made by the "Aluminiumwerke, Gottingen." In German.	1.50
12914-12924 PB L 74463	Cancelled	
12925-12930 PB L 74463	Effect of high percentage hydrogen peroxide of different manufacture on pure aluminum and Al alloys. In German.	1.50
12931-12936 PB L 74463	Cancelled	
12937-12940 PB L 74463	Solubility of noble steels manufactured by "Deutsche Edelstahlwerke A.G., Krefeld" in fusible pure aluminum at 670-680°. In German.	1.50
12941-12946 PB L 74463	Comparison of two different aluminum welds. In German.	1.50
12947-12955 PB L 74463	Behavior of lacquer coats on aluminum sheets. In German.	1.50
12956-12987 PB L 74463	Cancelled	
12988-13009 PB L 74463	Corrosion tests on remelted alloys. In German.	1.50
13010-13029 PB L 74463	MBV protective layers on light metal cast alloys under particular consideration of succeeding lacquering. In German.	1.50
13030-13040 PB L 74463	Cancelled	
13041-13045 PB L 74463	Solubility of sintered bodies in fusible purest aluminum at various temperatures. In German.	1.50
13046 PB L 74463	Cancelled	
13047-13052 PB L 74463	Al-Cu-Mg alloys with different fractions of Zn and Mg. In German.	1.50
13053-13056 PB L 74463	Cancelled	

13057-13060 PB L 74463 Corrosion test on an Al cable and Aldrey wire, both greased with Shell test grease #6464. In German. 1.50

13061-13063 PB L 74463 A new etching method for the structure of a casted Al-Cu-Mg alloy. In German. 1.50

13064-13071 PB L 74463 The influence of the zinc content in aluminum on the electric conductivity. In German. 1.50

13072-13075 PB L 74463 Behavior of aluminum and aluminum alloys with regard to nitric acid. In German. 1.50

13076-13090 PB L 74463 Cancelled

13091-13096 PB L 74463 Behavior of various tar products with regard to Al. In German. 1.50

13097 PB L 74463 Cancelled

13098-13156 PB L 74463 Missing

13157 PB L 74463 Cancelled

13158-13160 PB L 74463 The determination of the refining degree at low- eutectoid beta silumin melts. In German. 1.50

13161-13168 PB L 74463 Cancelled

13169-13171 PB L 74463 Comparative tests for the protection of cast alloys of silumin. In German. 1.50

13172-13175 PB L 74463 Cancelled

13176-13215 PB L 74463 New method for the electrolytic surface treatment of light metals. In German. 2.50

13216-13239 PB L 74463 Layer formation and bath guide at the "Bessal" method and "Flussal" process. In German. 2.00

13240-13241 PB L 74463 Behavior of aluminum and aluminum alloys with regard to nitric acid. In German. 1.50

13242-13247 PB L 74463 Direct production of casts by means of low frequency induction furnaces. In German. 1.50

13248-13250 PB L 74463 Low eutectoid beta-manganese-silumin above mixing quality. In German. 1.50

13251-13253 PB L 74463 Influence of an increased addition of magnesium on strength properties of the remelted alloy UC-Al-Zn-Cu 88. In German. 1.50

13254-13261 PB L 74463 Low eutectoid beta-manganese-silumin above mixing quality. In German. 1.50

13262-13266 PB L 74463 Cancelled

13267-13274 PB L 74463 An example for the dependence of the etching speed of foils on pretreatment. In German. 1.50

13275-13285 PB L 74463 Determination of zinc in aluminum, aluminum alloys and remelted metal. In German. 1.50

13286-13289A PB L 74463 Cold hardening of silumin with various zinc additions. In German. 1.50

13290-13292 PB L 74463 Cancelled

13293-13302 PB L 74463 Production of magnesium. In German. 1.50

13303-13305 PB L 74463 Cancelled

13306-13308 PB L 74463 Pre and after treatment of Al-Mg casts used for black coloring after previous MBV treatment. In German. 1.50

13309-13325 PB L 74463 Cancelled

13326-13331 PB L 74463 Production of magnesium. In German. 1.50

13332 PB L 74463 cancelled

13333-13362 PB L 74463 Missing

13363 PB L 74463 Cancelled

13364-13373 PB L 74463 Behavior of aluminum and aluminum alloys with regard to nitric acid. In German. 1.50

13374-13376 PB L 74463 Influence of the melting and refining process with regard to the properties of silumin. In German. 1.50

13377-13406 PB L 74463 Cancelled

13407-13414 PB L 74463 Production of an acid proof lacquer film on pure aluminum. In German. 1.50

13415-13420 PB L 74463 Tests for producing phosphate layers on Al. In German. 1.50

13421-13456 PB L 74463 Cancelled

13457-13465 PB L 74463 Production of alumina low in silicic acid from highly basic aluminum sulfite. In German. 1.50

13466-13495 PB L 74463 Missing

13496 PB L 74463 Cancelled

13497-13511 PB L 74463 Determination of the stability limit of sodium aluminate solutions between 74° and 94°. In German. 1.50

13512-13521 PB L 74463 Cancelled

13522-13528 PB L 74463 Investigations with regard to the reduction of attack by sodium hydroxide on aluminum due to an addition of potassium permanganate or potassium chromate. In German. 1.50

13529-13546 PB L 74463 Origin and phenomena of the segregation caused by tempering of aluminum alloys containing zinc, copper and magnesium. In German. 1.50

13547-13553 PB L 74463 Cancelled

13554-13568 PB L 74463 Structure variations caused by glowing of Al-Si alloys. In German. 1.50

13569-13581 PB L 74463 Cancelled

13582-13588 PB L 74463 Processing of mill dust. In German. 1.50

13589-13593 PB L 74463 — Inhibitory effect of permanganate during the attack of aluminum caused by aqueous sodium hydroxide. In German. 1.50

13594-13631 PB L 74463 — Cancelled

13632-13665 PB L 74463 — Tempering tests on eutectic and hypo-eutectoid silumin of various Mg. content. In German. 3.00

13666-13673 PB L 74463 — Cancelled

13674-13690 PB L 74463 — Stress of shaped castings in melted and tempered condition. In German. 1.50

13691 PB L 74463 — Investigation with regard to the influence of aluminum on fireproof stones. In German. 1.50

13692-13778 PB L 74463 — Missing

13779 PB L 74463 — Cancelled

13780-13802 PB L 74463 — Investigation of overhead line clamps for the "VDE Ausschuss Ortsnetze". In German. 1.50

13803-13812 PB L 74463 — Investigation of "Guro-Rapid" bracings manufactured by P. Jordan, Berlin. In German. 1.50

13813-13814 PB L 74463 — Potential measurements between "KS-Seewasser" alloy and pure aluminum of varied iron content. In German. 1.50

13939-13945 PB L 74463 — Reaction of aluminum sulfates and sulfites in the preliminary calcination product of the "St" method in aqueous solutions of sodium carbonate and magnesium hydroxide. In German. 1.50

13946-13991 PB L 74463 — Missing

13992 PB L 74463 — Cancelled

13993-13998 PB L 74463 — Behavior of autogenous welding seams in aluminum with regard to nitric acid. In German. 1.50

13999-14022 PB L 74463 — Cancelled

14023-14028 PB L 74463 — Influence of the titanium content on the crystallization of rolling ingots with 99.8% Al. In German. 1.50

14029-14037 PB L 74463 — Checking colorimetric titanium, chromium and vanadium measurements in aluminum salts (sulfites, sulfates) and aluminas. In German. 1.50

14038-14097 PB L 74463 — Cancelled

14098-14103 PB L 74463 — Influence of annealing conditions of the rolling hardness and degree of purity on chemical stability of pure aluminum. In German. 1.50

14104-14108 PB L 74463 — Cancelled

14109-14114 PB L 74463 — Behavior of titanium, chromium and vanadium during stirring of aluminate solutions from the "St" process. In German. 1.50

14115-14141 PB L 74463 — Cancelled

13815-13927 PB L 74463 — Missing

13928 PB L 74463 — Cancelled

13929-13938 PB L 74463 — Precipitation of highly basic aluminum sulfite from "St" solutions. Illustration of mono basic aluminum sulfite from highly basic solutions. In German. 1.50

14142-14149 PB L 74463 — Variation of the decomposing capacity of "Guttauer" clay with preheating process. In German. 1.50

14150-14172 PB L 74463 — "Calcium aluminate" method. In German. 1.50

14173-14346 PB L 74463 — Missing

14347 PB L 74463 — Cancelled

14348-14353 PB L 74463 — Melting and evaporating losses of cryolites. In German. 1.50

14354-14370 PB L 74463 — Cancelled

14371-14374 PB L 74463 — Report on the corrosion of aluminum by pure chlorine as well as aluminum and copper by an air-chlorine gas mixture. In German. 1.50

PB L 70153. VEREINIGTE DEUTSCHE METALL WERKE, FRANKFURT AM MAIN, GERMANY. Properties and metallurgical processes of metals and alloys. (FIAT Microfilm Reel J-14, Frames 1888-2804). 1933-1945. 1015 f. Price: Microfilm-$6.00 - Enlargement print-$101.50

This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1888-1911 PB L 70153	Aluminum and malleable aluminum alloys. n. d. In German.	$2.50
1912-1930 PB L 70153	Asterna bronzes. 1934. In German.	2.00
1931-1938 PB L 70153	Tin-phosphorus-bronzes. n. d. In German.	1.50
1939-1960 PB L 70153	Comparative corrosion tests in different sea-water spraying plants. 1938. In German.	2.50
1961-1962 PB L 70153	The influence of the grain direction on the fatigue strength of an Al-Cu-alloy. n. d. In German.	1.50
1963 PB L 70153	Alternating bending testing. 1932. In German.	1.50
1964-1974 PB L 70153	Wear tests on aluminum alloys. 1940. In German.	1.50
1975-2007 PB L 70153	Investigations on spraying devices of different size and shape and on the alternating dipping device. n. d. In German.	2.50
2008-2037 PB L 70153	Corrosion tests with seawater on Al-alloys. 1936. In German.	3.00
2038-2061 PB L 70153	Influence of different sea water spraying plants on some aluminum alloys. 1937. In German.	2.50

2062-2067 PB L 70153 — Standardisation of corrosion tests. 1939. In German. 1.50

2068-2095 PB L 70153 — Alternating bending test for light metals. n. d. In German. 3.00

2096-2310 PB L 70153 — Experiences with substitute raw material. 1938-1942. In German. 21.50

2311-2315 PB L 70153 — Application of copper-zinc alloys for machine parts with sliding or rolling compressive or impact stress. n. d. In German. 1.50

2316-2339 PB L 70153 — Properties of the "W.F. 26" aluminium bronze. n. d. In German. 2.50

2340-2347 PB L 70153 — Fatigue strength of bronzes. 1943. In German. 1.50

2348-2369 PB L 70153 — Fatigue strength and hot yield point limit of multi metal alloys, which include copper. 1943. In German. 2.50

2370-2425 PB L 70153 — Shearing strength tests on aluminum rivets. 1939-1944. In German. 6.00

2426-2458 PB L 70153 — Investigations on an Al-Zn-Mg - alloy. 1943. In German. 3.50

2459-2503 PB L 70153 — Utilization of scrap in leadbronze casting manufacture. n. d. In German. 4.50

2504-2511 PB L 70153 — Action of air cooling on the mechanical quality values of "Constructal" sheets. 1942. In German. 1.50

2512-2581 PB L 70153 — Testing of sintered objects of lead-bronze scrap metal. 1943. In German. 7.00

2582-2607 PB L 70153 — New magnesium alloys. n. d. In German. 3.00

2608-2616 PB L 70153 — Soft annealing of sheets of the Al-Zn-Mg group. (Constructal). 1942. In German. 1.50

2617-2680 PB L 70153 — Welding of copper and brass. n. d. In German. 6.50

2681-2691 PB L 70153 — Substitutes for copper containing aluminum alloys. 1943. In German. 1.50

2692-2698 PB L 70153 — Hot pressing tests with sintered iron. n. d. In German. 1.50

2699-2716 PB L 70153 — Tension corrosion test on aluminum alloys. 1942. In German. 2.00

2717-2734 PB L 70153 — Testing of the wear and gliding properties of some alloys. 1944. In German. 2.00

2735-2746 PB L 70153 — Action of air-cooling on the mechanical quality of Al-Zn-Mg-metal sheet. (Constructal). 1942. In German. 1.50

2747-2752 PB L 70153 — Production of brake discs from compound scrap powder. 1944. In German. 1.50

2753-2758 PB L 70153 — Bearing shells from remelted alloys of the zinc-aluminum series. 1944. In German. 1.50

2759-2760 PB L 70153 — Process for coating iron worm gears with bronze. 1944. In German. 1.50

2761-2764 PB L 70153 — Corrosion tests with copper-, aluminum-, Pantal and Heidur sheets. Jun 8, 1945. In German. 1.50

2765-2777 PB L 70153 — Overcoming the critical situation of the metal industry. 1944. In German. 1.50

2778-2786 PB L 70153 — Process for coating worm gear bodies, worms or similar working pieces. 1942. In German. 1.50

2787-2804 PB L 70153 — Electrolytical production of lead bronze bearings. 1943. In German. 2.00

PB L 70153-S. VEREINIGTE DEUTSCHE METALLWERKE, FRANKFURT AM MAIN, GERMANY. Properties and metallurgical processes of metals and alloys. (FIAT Microfilm Reel J-14, Frames 1888-2804, abstract cards) 1932-1945. 76 p. Price: Microfilm-$2.00 - photostat-$6.00

Brief abstracts of the individual items on the above reel J 14, PB L 70153, prepared by FIAT personnel.

PB L 73947. VEREIN. DEUTSCHEN EISENHÜTTENLEUTE, DÜSSELDORF. Metallurgical processes with iron by means of the "Stürzelberg method." (FIAT Microfilm Reel AA 232, Frames 1-52) 1937-1939. 52 f. Price: Microfilm-$1.50 - Enlargement print-$5.50

This reel prepared by FIAT investigators in Germany contains reports on experiments for producing iron according to the Stürzelberg method of the Stürzelberg foundry in Stürzelberg. This foundry produces special iron which comes in a very pure state with regard to non-metallic impurities. A description of the procedure is included. The attemps made in recent years expecially in the German iron industry to desulfurize the highly sulfuric iron resulting from the acid blast furnace process, gave impulse to the idea of applying the experiences obtained in the reduction of iron ores in the rotating furnace for the desulfurization of blast furnace raw iron. Several large-scale experiments of desulfurizing with quick lime were made. Investigations of the waste gas flow behind the Stürzelberg drum furnace show that the use of quick lime instead of limestone decreases the coal consumption thus enabling an increase of the charge weight. The reports contain many tables and graphs. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-3 PB L 73947	Investigation of the exhaust behind the "Stürzelberger" drum furnace. In German.	$1.50
4-9 PB L 73947	Desulfurization with quick lime in the "Stürzelberger" drum furnace. In German.	1.50
10-12 PB L 73947	Visit to the "Stürzelberger" drum furnace. In German.	1.50
13-19 PB L 73947	Large desulfurization test with the "Stürzelberger" rotory furnace. In German.	1.50
20-24 PB L 73947	Desulfurization of acidic pig iron. In German.	1.50
25-27 PB L 73947	Stürzelberger test. In German.	1.50
28-52 PB L 73947	Protocols and analyses of desulfurization tests. In German.	1.50

PB L 74046. VEREINIGTE ALUMINIUMWERKE, TOEGING A. INN. Reparations inventory. (FIAT Microfilm Reel B 346, Frames 1-187) 1946. 187 f. Price: Microfilm-$2.75 - Enlargement print-$19.00

This reel contains plant data for the above mentioned plant obtained by the United States section of the Control Commission for Germany. Included are a short description of the firm, an inventory of fixed assets, an index key plan of the plant and abbreviations pertinent thereto.

METEOROLOGY AND CLIMATOLOGY

PB L 57317. GREAT BRITAIN. AIR MINISTRY. METEOROLOGICAL OFFICE. Meteorological air observer's handbook. (British Commonwealth Scientific Office Rept 65-B1-10). 1945. 73 p. Price: Microfilm-$2.00 - Photostat-$5.00
The purpose of this handbook is to give general guidance on meteorological observations from aircraft. It is not concerned with the detail of flight procedure, which vary from one type of flight to another. This handbook is intended primarily for the guidance of meteorological observers on reconnaissance flights, but the contents are applicable to the other classes of flight, within the limits of what may be attempted in meteorological observation on such flights. The text is supplemented by photographs, tables and graphs. Nine appendices containing calculation samples, tables, photographs of clouds as seen from the air as well as report and log sheets are included.

*PB L 81286. HOENDORF, FRITZ. Research on atmospheric movements by use of gliders. (FIAT Final Rept 1054). Apr 1947. 100 p. Price: Mimeo-$2.50
The practical application of the material described in this report makes possible complete analytical representation of the lifting power of air currents used in the practice of gliding and gives a summary of all gliding meteorological problems which are of importance in practice. The report is a study of the combined action of lifting powers, friction and inertia of single air particles. Tables, sketches and a bibliography are included. The report is in German.

* PB L 80386. ROSSMANN, FRITZ. Measurement of atmospheric electricity by means of gliders. (FIAT Final Rept 1066). May 1947. 136 p. Price: Mimeo $3.50
This report deals with a new use of a cargo glider in connection with the investigation of atmospheric electricity. The potential gradient, polar conductivity, ion density and dust quantity of the atmosphere up to four and five thousand meters are discussed and supplemented by flight test data of many experiments. All special measuring devices are described from both the theoretical and practical view-points. A number of diagrams and illustrations are included. Appendix I contains a bibliography and Appendix II contains 35 graphical representations of meteorological measurements recorded at Ainring, Germany. In German.

PB L 78711. U. S. CHIEF OF NAVAL OPERATIONS. AEROLOGY SECTION. Radar and weather. (NAVAER 50-IR-183). Oct 1945. 47 p. Price: Microfilm-$1.00 - Photostat-$4.00
Radar and weather are very closely allied. On the one hand, the use of radar has provided aerologists with a tool which permits the collection of atmospheric data under conditions when the more orthodox methods fail. On the other, a knowledge of atmospheric conditions provides the radar operator with information vital to the accuracy of his results. Chapter I deals in detail with the types of weather information obtainable by use of radar. Chapter II gives definitions for rawin, range, azimuth, elevation, radar reflectors and transpondors or pulse repeaters. Chapter III describes radar storm detection. The test is accompanied by illustrations throughout.

PB L 80914. U. S. WAR DEPARTMENT. Graphing board ML-312/TM. (Tech Manual 11-2429). Nov 1946. 30 p. Price: Microfilm-$1.00 - Photostat-$2.00

* PB L 81631. WEICKMANN, HELMUT. Elements of clouds and precipitation. (FIAT Final Rept 1063). Jun 1947. 44 p. Price: Mimeo-$1.25
This report consists of three parts. The first part deals with investigations into the micro-physics of the water droplet clouds. The second part contains micro-photographs of ice particles and new data on their origin and growth. The third part shows by actual case data how the elements of precipitation may change their form by falling through clouds. Appendix I contains ten diagrams and photographs, and Appendix II a bibliography. The text of the report is in German.

* PB L 75853. WEST, H. W. and others. Materials for construction of meteorological balloons. (BIOS Final Rept 1104, Item 9, 22). Jan 1947. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00
The object of this investigation was to obtain information on rubber and plastic materials, and on tests conducted with balloons made of these materials, with a view to providing the basis of a future investigation by a specialist team if it was considered necessary. Results of interviews with the following persons are given: Professor Grundmann, Brunswick, and Dr. Erich Regener, Stuttgart.

MINERALS AND MINERAL PRODUCTS

PB L 74460. KAISER WILHELM INSTITUT FUR SILIKATFORSCHUNG, KONIGSHOFEN/BAYERN. Correspondence reports and papers of the ceramic industry, mainly concerned with substitution of critical materials. (FIAT Microfilm reel I-299, Frames 1-456) 1936-1946. 456 f.
Price: Microfilm $6.00 - Enlargement prints - $46.00
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-74 PB L 74460	Correspondence on the development of spark plugs. In German.	$7.50
75-78 PB L 74460	Investigation of ceramic materials for dielectric antennas. In German.	1.50
79-85 PB L 74460	Record of a discussion on special ceramic developments. In German.	1.50
86-87 PB L 74460	Development of parts for high frequency devices. In German.	1.50
88-90 PB L 74460	Test and results of HF wet pressing mass. In German.	1.50
91-92 PB L 74460	Material subdivision of group V of DIN 40 685. In German.	1.50
93-97 PB L 74460	Reaction of heat conductors with ceramic heat conductor support. In German.	1.50
98-103 PB L 74460	Condensers. In German.	1.50
104 PB L 74460	Various technical notes. In German.	1.50
105-110 PB L 74460	Wet pressing material. In German.	1.50
111-121 PB L 74460	Various technical notes. In German.	1.50
122-124 PB L 74460	Centralization of developments. In German.	1.50
125-126 PB L 74460	Record on a meeting with representatives of the "Reichsanstalt fur Film und Bild in Wissenschaft und Unterricht" held 1942. In German.	1.50
127-128 PB L 74460	Administrative notes. In German.	1.50

129-130 PB L 74460 — Glazing tensile tests at low temperatures. In German. 1.50

131-134 PB L 74460 — Dry pressing mill in Erkersreuth. In German. 1.50

135-136 PB L 74460 — Meeting report on ceramic masses. In German. 1.50

137-141 PB L 74460 — Discussion on water gruels. In German. 1.50

142-152 PB L 74460 — Discussion on ceramic developments. In German. 1.50

153-154 PB L 74460 — Memo of the "Wirtschaftsgruppe Keramische Industrie"with regard to the key on data concerned with DIN 40685. In German. 1.50

155-156 PB L 74460 — Badly reproduced.

157 PB L 74460 — Table on materials of the "Rosenthal-Isolatoren G.m.b.H. Selb". In German. 1.50

158 PB L 74460 — Letter. In German. 1.50

159-165 PB L 74460 — Report on laboratory experiments with ceramic materials. In German. 1.50

166-167 PB L 74460 — Discussion on HF material. In German. 1.50

168-172 PB L 74460 — Small porous ceramic balls for the purification of waste water. In German. 1.50

173-178 PB L 74460 — Test experiences and measurements of insulators and ceramic masses. In German. 1.50

179-180 PB L 74460 — Notes on ceramic high frequency materials and devices. In German. 1.50

181-187 PB L 74460 — Correspondence with regard to FIAT review of German Science "Metallkunde, 1939-1946. In German. 1.50

188-189 PB L 74460 — Test report on metal-metal oxide compounds. In German. 1.50

190 PB L 74460 — See Frames 181-187.

191-192 PB L 74460 — Table on costs of salaries and materials spent for a turbine as of Jan. 1, 1945 - March 31, 1945. In German. 1.50

193-207 PB L 74460 — Materials for guide blades and correspondence concerned with same subject. In German. 1.50

208 PB L 74460 — Notes on ignition parts made of pressed glass. In German. 1.50

209-213 PB L 74460 — Ceramic materials for the construction of gas turbines. In German. 1.50

213-214 PB L 74460 — Letter on the cooperation of the "Kaiser Wilhelm Institut für Silikatforschung, Berlin" with private industry. In German. 1.50

215-219 PB L 74460 — Sintered compound materials. In German. 1.50

220-223 PB L 74460 — Letter on future work plan and technical notes. In German. 1.50

224-228 PB L 74460 — See Frames 209-213.

229-230 PB L 74460 — Tests for the development of high quality ceramic construction parts for TL power units. In German. 1.5

231-232 PB L 74460 — Ceramic materials for S-303 and 304 engines. In German. 1.50

233-240 PB L 74460 — Condenser disc, sample condensers, tube-like condensers. In German. 1.50

241-250 PB L 74460 — Industrial surveys and measurements of ceramic specimens. In German. 1.50

251-316 PB L 74460 — Correspondence on clay, soapstone, and talc surveys, mensurations and evaluations. In German. 7.00

317-326 PB L 74460 — Research reports on the production of a solid material with adjustable dielectric constant. In German. 1.50

327-336 PB L 74460 — Correspondence concerned with raw material substitutes, experiences and reports for the manfacture of industrial machinery. In German. 1.50

337-347 PB L 74460 — Metal glass, ceramic melts. In German. 1.50

348-349 PB L 74460 — Melting process on glazed "Frequanta" fragments. In German. 1.50

350-351 PB L 74460 — Discussion of current conduction in tubes. In German. 1.50

352-353 PB L 74460 — Guest list for a technological meeting. In German. 1.50

354-355 PB L 74460 — Metal, glass, ceramics. In German. 1.50

356-357 PB L 74460 — Critique on the increased use of plastics in the USA. In German. 1.50

358 PB L 74460 — Piezo crystals. In German. 1.50

359-360 PB L 74460 — Report on titanium substances. In German. 1.50

361-363 PB L 74460 — Research on ceramic materials containing titanium dioxide. In German. 1.50

364 PB L 74460 — Letter on glass and ceramics used as substitute for metal. In German. 1.50

365-366 PB L 74460 — See Frame 358.

367-368 PB L 74460 — Investigation and development of detectors. In German. 1.50

369-370 PB L 74460 — Letter concerned with radio crystals. In German. 1.50

371-381 PB L 74460 — Development of a ceramic material and processing method for dielectric antennas. In German. 1.50

382-396 PB L 74460 — Correspondence on dielectric antennas. In German. 1.50

397-398 PB L 74460 — Development of plastic substances and Rutil additions with high dielectric constant. In German. 1.50

399-401A PB L 74460 — Research on insulating materials of a high dielectric constant. In German. 1.50

402-419 PB L 74460 — Manufacture and investigation of insulating material of low reflection. In German. 2.00

420-456 PB L 74460 — Report on plastics used and to be used for the construction of airplanes and other industrial products. In German. 4.00

PERSONNEL APTITUDE TESTING AND JOB TRAINING

PB L 74062. I. G. FARBENINDUSTRIE A.G., LUDWIGSHAFEN. Industrial management. (FIAT Microfilm Reel BB 196, Frames 1-1001) 1940-1944. 668 f. Price: Microfilm-$6.00 - Enlargement print-$67.00
This film, prepared by FIAT investigators in Germany, contains examples and instructions for psychotechnical ability tests. Among others, a detailed instruction is given for attaining psychological efficiency, making personality evaluations of new apprentices or workers, and of staff members scheduled to be promoted. (Treatment of workers in a plant by Dr. Albrecht Weise - Ludwigshafen.) Numerous examples and blank examination forms are given for the psychotechnical and ability tests as suggested in the above-mentioned instructions. In German.

PB L 73979. MOEDE, W. Job training and aptitude testing. (FIAT Microfilm Reel BB-174, Frames 1-564). 1935-1943. 564 f. Price: Microfilm-$6.00 - Enlargement print-$56.50
This reel was prepared by FIAT investigators in Germany and contains economic and psychological material on employment and tariff. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-63 PB L 73979	Tariff agreement between metal industry and labor in Berlin, Jul 16, 1938. In German.	6.50
64-207 PB L 73979	A publication on "Factory techniques" by W. Moede, Stuttgart, 1935. In German.	14.50
208-323 PB L 73979	Aptitude testing and practical work, by W. Moede, Stuttgart, 1943 containing psychological examinations on trade abilities. In German.	12.00
324-328 PB L 73979	Basic educational program for trades in the iron and metal industry explained by the "Reichsinstitut für Berufsausbildung in Handel & Gewerbe", Berlin. n. d. In German.	1.50
329-338 PB L 73979	War wounded used as precision mechanics by Gaukler, Fritz of Siemens-Halske, Berlin, Siemensstadt. n. d. In German.	1.50
339-348 PB L 73979	Defective frames.	
349-360 PB L 73979	Experiences of the electrotechnical industry with incapacitated personnel from Lange, Johannes of Siemens-Schuckertwerke, A. G., Berlin - Siemensstadt. n. d. In German.	1.50
361-564 PB L 73979	See 324-328. Edition A for the educator. Many drawings with annotations explain various techniques. n. d. In German.	20.50

PB L 73982. SIEMENS-SCHUCKERT WERKE, BERLIN-SIEMENSSTADT. Training courses and machine shop practices. (FIAT Microfilm Reel B 234, Frames 728-1626) 1934-1944. 898 f. Price: Microfilm-$6.00 - Enlargement print-$90.00
This reel, prepared by FIAT investigators in Germany, contains educational material for training in various trades. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
728-793 PB L 73982	Courses for foreman trainees. n. d. In German.	$7.00
794-864 PB L 73982	Training schedule for female supervisors. n. d. In German.	7.50
865-872 PB L 73982	Methods for factory nurses. n. d. In German.	1.50
873-1133 PB L 73982	Training of female coil winders. n. d. In German.	26.50
1134-1290 PB L 73982	Schedule for female tool making helpers. n. d. In German.	16.00
1291-1327 PB L 73982	Safety instructions and pamphlets on the prevention of accidents. n. d. In German.	4.00
1328-1365 PB L 73982	Current art expositions held by workers in their leisure time. n. d. In German.	4.00
1366-1421 PB L 73982	Instructions for turners. n. d. In German.	6.00
1422-1482 PB L 73982	Electrical techniques. n. d. In German.	6.50
1483-1529 PB L 73982	Critical observation of candidates testing procedures and organizing directions. n. d. In German.	5.00
1530-1625 PB L 73982	Training plan for locksmiths, instructions for keeping factory records, tooling, manual labor procedures, testing of candidates, equipment, and machine shop practices. n. d. In German.	10.00

* PB L 78263. VITELES, MORRIS S. and ANDERSON, L. DEWEY. Training and selection of supervisory personnel in the I.G. Farbenwerke, Ludwigshafen. (FIAT Final Rept 930). Mar 1947. 35 p. Price: Mimeo-$1.00
Reviews the background, organization, and administration of a program of supervisory training and selection in a large German industrial plant. An analysis showed that poor supervision represented a serious handicap to increased production. Interviews with workers indicated that, while most of them were content with the wage scale, working conditions, social and welfare programs, there was considerable dissatisfaction with the quality of supervision. A training program, consisting chiefly of conferences on sound psychological principles and methods of leadership, was initiated. Approximately two-thirds of the experienced supervisors undergoing such training expressed interest and approximately one-third showed improvement in supervisory practices. As a further step, psychological examinations for the selection of supervisors, involving particularly the use of "characterological" methods, were introduced. These methods are described. While plans were made for the validation of the psychological examination, these were not consummated because of the invasion. Six appendices are included containing following information: 1) List of German personnel interviewed; 2) list of German factories visited; 3) a bibliography; 4) sample material from the supervisor training program; 5) sample material covering the evaluation of applicant 1 for a supervisor position; and 6) sample material covering evaluation of applicant 2 for a superviser position.

PHOTOGRAPHIC AND OPTICAL GOODS (INCLUDING PHOTOGRAPHIC PROCESSING)

PB L 73041. LEITZ, ERNST, G.M.B.H., WETZLAR, GERMANY. Calculations for objectives. (FIAT Microfilm Reel F 16, Frames 1-1100) 1937-1938. 1100 f. Price: Microfilm-$6.00 - Enlargement print-$110.00
This FIAT microfilm reel contains calculations for objectives listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased

in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
1-183 PB L 73041	Calculations for an unidentified objective. 1937. In German.	$18.50
184-440 PB L 73041	Calculations of the effect of an error in the surface of one lens on the error for the whole objective. 1937. In German.	26.00
441-879 PB L 73041	Objective f = 5,0 cm, 1:1,5. 1938. In German.	44.00
880-1018 PB L 73041	Objective Summar 1:2, 1935. In German.	14.00
1019-1100 PB L 73041	Special objective f = 95 mm, 1:4, for enlarger 6 1/2 x 9 cm. 1937. In German.	8.50

PB L 73043. LEITZ, ERNST, G. M. B. H., WETZLAR, GERMANY. Calculations for objectives. (FIAT Microfilm Reel F-18, Frames 1-1266). 1930-1940. 1066 f. Price: Microfilm-$6.00 - Enlargement print-$107.00

This FIAT microfilm reel consists of calculations for objectives listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm. In German.

Frames	Title	Price
1-113 PB L 73043	Objective Hektor, f = 5.0 cm. 1 : 1.2. In German.	11.50
114-191 PB L 73043	Objective Efei for projectors, f = 400 mm, 1 : 4,0, 1930. In German.	8.00
192-342 PB L 73043	Wide-angle objective, f = 25 mm. In German.	15.50
343-710 PB L 73043	Objective Hektor for motion-picture microfilms 1 : 1,5 and 1 : 4,5. 1935. In German.	37.00
711-739 PB L 73043	Teleobjective for miniature films, f = 75 cm, 1 : 4,0. In German.	3.00
740-939 PB L 73043	These frames are missing.	
940-1107 PB L 73043	Special objective for enlarger Triplex, f = 95 mm, 1 : 4,0. Calculations and drawings. 1937. In German.	16.00
1108-1266 PB L 73043	Wide-angle objective for miniature films, f = 15 cm, 1 : 2,5. 1940. In German.	16.00

PB L 73037. LEITZ, ERNST, G.M.B.H. WETZLAR, GERMANY. Drawings and calculations for magnifying glasses. (FIAT Microfilm Reel F-12, Frames 1-472) 1943-1944. 472 f. Price: Microfilm - $5.50 - Enlargement prints-$47.50

This FIAT microfilm reel contains drawings and calculations for magnifying glasses as listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $5.50. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frame	Titles	Price
1-33 328 171-258 PB L 73037	Magnifying glass for I.R. optic, 10 x. 1944. In German.	$12.50
34-54 PB L 73037	Magnifying glass for I.R. optic, 3,6 x. 1944. In German.	2.50
55-150 PB L 73037	Magnifying glass for I.R. optic, 4,3 x. 1943. In German.	18.50
151-170 259-327 329-330 PB L 73037	Magnifying glass for I.R. Optic, 5 x. 1944. In German.	9.50
331-343 PB L 73037	Eyepiece used as magnifying glass. 3x. 1944. In German.	1.50
344-472 PB L 73037	Magnifying glass, 3x. 1944. In German.	13.00

PB L 73044. LEITZ, ERNST, G.M.B.H., WETZLAR, GERMANY. Drawings and calculations for objectives. (FIAT microfilm Reel F-19, Frames 1-739) 1929-1939. 739 f. Price: Microfilm - $6.00 - Enlargement prints - $74.00

This FIAT microfilm reel consists of calculations including graphs and drawings for objectives listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frame.	Titles	Price
1-59 636-739 PB L 73044	Wide-angle objective for miniature films, f = 15 mm, 1 : 1,25. Drawings and calculation, 1939. In German.	$ 16.50
60-396 PB L 73044	Objective Summar, f = 5 cm, 1:1,5. Drawing and calculation. 1936. In German.	34.00
397-447 PB L 73044	High-intensity objective 1:2,0. Graphs, drawings and calculation. 1929. In German.	5.00
448-500 PB L 73044	Six objectives, 1:2,0, Calculations. In German.	5.00
501-547 PB L 73044	Seven objectives for enlarged field of view, 1:1,3. Graphs drawings and calculation. 1930. In German.	5.00
548-635 PB L 73044	Objective f = 75 mm, 1:2,0, Calculation, graphs and drawings. In German.	9.00

PB L 73045. LEITZ, ERNST, G.M.B.H. WETZLAR, GERMANY. Drawings and parts lists for microscopes and accessories. (FIAT Microfilm Reel F-20, Frames 1-959) 1920-1938. 959 f. Price: Microfilm - $6.00 - Enlargement prints-$96.00

This FIAT microfilm reel consists of drawings and parts lists for microscopes, loupes, appurtenances and accessories listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased as a microfilm for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frame	Titles	Price
1-89 PB L 73045	Microscope stands VI a, VII and VIII a. 1929-1933. In German.	$9.00
90-103 PB L 73045	Traveling trichinoscope. 1930. In German.	4.00

104-145 PB L 73045	Microscope for observing specimens. 1920. In German.	4.50
146-185 PB L 73045	Comparison microscope according to Metz. 1938. In German.	2.00
186-264 PB L 73045	Loupe with large angle of view for observing specimens. 1921. In German.	8.00
265-330 PB L 73045	Binocular loupe for observing specimens, magnification 3.5x, 7x and 10, 5 x. 1927. In German.	7.00
331-390 PB L 73045	Binocular loupe, magnification 20 x and 30 x. 1927. In German.	6.00
391-426 PB L 73045	Large columnar stand. 1940. In German.	4.00
427-507 PB L 73045	Universal microscope stand. 1934. In German.	8.50
508-588 PB L 73045	Microscope stand with changeable tubus. 1925. In German.	8.50
589-618 PB L 73045	Microscope stand with coordinated displacement 50 x 50 mm. 1928. In German.	3.00
619-662 PB L 73045	Microscope stand C.B.M.P. 1938. In German.	4.50
663-698 PB L 73045	Binocular loupe-type microscope. 1924. In German.	4.00
699-750 PB L 73045	Binocular loupe, magnification 10x, 20x and 30x. 1924. In German.	5.50
751-777 PB L 73045	Microscope stand with coordinated displacement. 1935. In German.	3.00
778-801 PB L 73045	Microscope stand with a table lamp. 1924. In German.	2.50
802-959 PB L 73045	Binocular tubus with two objectives. 1930. In German.	16.00

PB L 73047. LEITZ, ERNST, G.M.B.H. WETZLAR, GERMANY.
Drawings and parts lists for optical instruments.
(FIAT Microfilm Reel F-22, Frames 1-1001) 1929-1934.
1001 f. Price: Microfilm - $6.00 - Enlargement prints-$100.50
This FIAT microfilm reel consists of drawings for optical instruments and accessories as listed in groups below, with parts and parts lists. Individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frame	Titles	Price
1-87 125-176 182-237 338-418 507-534 607-666 821-838 PB L 73047	Microscope stands, Models: G., U.K.II., U.M.B., U-H., J. 1929-1933. In German.	$38.50
88-124 252-269 419-495 572-606 667-693 893-969 984-1001 PB L 73047	Microscopes of the following types: Museum, travel, comparison, trichinoscope, binocular and special for micromanipulation. 1932-1934. In German.	29.00
177-181 238-251 270-337 839-892 PB L 73047	Columnar stands with one and two columns for vertical or horizontal displacement or both. 1923-1933. In German.	14.50
496-506 535-571 PB L 73047	Monocular and binocular tubus with eyepiece for 45°. 1930-1931. In German.	5.00
694-820 PB L 73047	Binocular loupe. 1933. In German.	13.00
970-983 PB L 73047	Stand for microscope motion-picture camera. 1934. In German.	1.50

PB L 73050. LEITZ, ERNST, G.M.B.H., WETZLAR, GERMANY.
Drawings and parts lists for optical instruments.
(FIAT Microfilm Reel F-25, Frames 2897-3881) 1922-1945.
985 f. Price: Microfilm - $6.00 - Enlargement prints-$98.50
This FIAT microfilm reel consists of parts lists and drawings of optical instruments, parts and accessories listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frame	Titles	Price
2897-2914 PB L 73050	Revolver eyepiece. Parts lists and drawings. 1936. In German.	$2.00
2915-2925 2975-3003 3021-3044 3130-3176 PB L 73050	Tube attachments for 45° eyepiece, monocular and stereoscopic. 1935-1940. In German.	11.50
2926-2938 2959-2974 3061-3116 PB L 73050	Simple eyepieces for various purposes, from 4 x to 10 x. Drawings and parts lists. 1931 to 1936. In German.	8.50
2939-2958 3045-3057 3117-3122 PB L 73050	Huyghens' eyepieces for various purposes, from 3 x to 10 x, with and without iris diaphragm. Drawings and parts lists. 1926-1931. In German.	4.00
3004-3009 3058-3060 PB L 73050	Periplan eyepieces, 3 x and 8 x. Drawings and parts lists. 1928-1931. In German.	1.50
3010-3020 PB L 73050	Ramsden's eyepiece, 12. 5 x f = 17. 5 mm. Parts list and drawings. 1931. In German.	1.50
3123-3129 PB L 73050	Ehrlich eyepiece, 6 x. Parts list and drawings. 1930. In German.	1.50
3177-3324 3336-3420 3460-3556 3571-3623 3637-3659 3673-3695 3705-3711 3729-3753 3770-3828 PB L 73050	Microscope objectives models O, 1*, 1, 1a, 2 (6 : 1, A O, 18), 3, 3b; 6; 6I (1945); 7; 1; 12; 6a; 7a; 3F; 1 : 10; 8a; 9a; 1.; 12; 1 : 16; 16 mm; 8 mm; 4 mm; 3 mm; 2 mm; 3H; 1 : 12, f = 20 mm; H, f = 30 mm; 4; 5; 1K; 3r; 2b; 3IK; U M1, (5 ; 1); U M2; U M3; U M4. Drawings and parts lists. 1922-1945. In German.	52.00
3325-3335 3557-3570 3660-3672 3696-3704 3754-3769 PB L 73050	Microscope objectives for oil and/or water immersion, 1 : 7; 2 mm, 3 mm; 8 mm; 16 mm. Drawings and parts list. 1934-1935. In German.	6.50
3421-3459 PB L 73050	Apochromat 4 mm, parts lists and drawings. 1938. In German.	4.00
3624-3636 3712-3728 PB L 73050	Objective intermediates with iris diaphragm. Drawings and parts lists. 1927. In German.	3.00
3829-3881 PB L 73050	Objectives Summar f from 24 mm to 64 mm. 1 : 4, 5. Parts lists and drawings. 1928-1941. In German.	5.50

PB L 73042. LEITZ, ERNST, G.M.B.H. WETZLAR, GERMANY. Drawings, data and calculations for optical lenses. (FIAT Microfilm Reel F-17, Frames 1-1002) 1929-1942. 1002 f. Price: Microfilm - $6.00 - Enlargement prints - $100.00
This FIAT microfilm reel contains calculations, data and drawings for optical lenses listed below. Individual items will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frame	Titles	Price
1-119 PB L 73042	Special objective for enlarger 6 1/2 x 9 cm. F = 95 mm. 1:4. In German.	$12.00
120-137 144-214 415-470 PB L 73042	Leica objectives f = 50 mm and f = 52 mm. 1:3.5 and 1:4.5. 1929-1930. In German.	14.50
215-259 PB L 73042	Projector f = 150 mm. Drawings and calculations. In German.	4.50
138-143 971-1002 PB L 73042	Objectives Elmar f = 50 mm for miniature camera. Calculations. 1929-1930. In German.	4.00
260-325 602-622 PB L 73042	Objectives Hektor f = 9:0 cm, f = 25 mm and f = 27 mm. Calculations, graphs and drawings. 1941. In German.	9.00
326-414 961-962 PB L 73042	Teleobjectives, f from 165.1 to 209.55 mm. Drawings and calculations. In German.	9.50
471-601 623-680 PB L 73042	Unidentified objectives, 1:3. Calculations. 1930. In German.	19.00
681-859 885-925 PB L 73042	Optics for wide-angle telescope, 220°. Drawings, graphs and calculations. 1942. In German.	22.00
860-884 PB L 73042	Objective Summar, f = 52 mm, 1:2. Drawings, graphs and calculations. 1942. In German.	2.[illegible]
964-970 PB L 73042	Mineralogical objective according to Federow. Drawings and data. In German.	1.50
926-933 PB L 73042	Calculations with reference to Patent 538872 of Bielicke for a high intensity objective, 1:1.3. In German.	1.50
934-960 PB L 73042	Periscope system for enlarger. Data. In German.	3.00
963 PB L 73042	View finder for Leica camera. Data. In German.	1.50

PB L 73025. LEITZ, ERNST, G.M.B.H., WETZLAR, GERMANY. Parts and tools for optical instruments. (FIAT Microfilm Reel D-21, Frames 4349-4973) 1936-1941. 625 f. Price: Microfilm -$6.00 - Enlargement prints - $62.50
This FIAT microfilm reel consists of drawings and parts lists for precision tools used in the manufacture of optical instruments as listed below; some drawings for parts of microscopes are included. Individual sections of the reel will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual sections of this microfilm reel. In German.

Frame	Titles	Price
4349-4353 4355-4361 4379, 4385 4753-4754 4765-4770 4773 PB L 73025	Fixtures. In German.	$2.50
4354 PB L 73025	Bushings. In German	1.50
4362-4365 PB L 73025	Parts for oil immersion microscope. In German.	1.50
4366, 4373-4377 4380-4384 4386-4388 4394 4396-4398 PB L 73025	Ripping chisels. In German.	2.00
4367-4372 4378, 4390-4393 PB L 73025	Boring devices. In German.	1.50
4389,4395 PB L 73025	Milling tools. In German.	1.50
4399-4412 PB L 73025	Hobs. In German.	1.50
4413-4500 PB L 73025	Parts for small turrethead boring mill. In German.	9.00
4501-4523 PB L 73025	Tools for a small turrethead boring mill. In German.	2.50
4524-4544 PB L 73025	Knurling tools. In German.	2.50
4545-4738 PB L 73025	Milling machine tools. In German.	19.50
4739-4746 4755 PB L 73025	Cages. In German.	1.50
4747-4752 4756-4759 PB L 73025	Unidentified parts. In German.	1.50
4760-4764 4771-4772 PB L 73025	Base and table plates. In German.	1.50
4774-4781 PB L 73025	Parts for a rotary tester. In German.	1.50
4782-4798 PB L 73025	Parts for a small measuring table and parts lists. In German.	2.00
4799-4804 PB L 73025	Bubble level. In German.	1.50
4805-4826 PB L 73025	Spring testing machine. Parts and parts lists. In German.	2.50
4827-4841 PB L 73025	Depth gage. Parts. In German.	1.50
4842-4973 PB L 73025	Collector slides for field glasses adjustment device. Parts. In German.	13.50

PB L 73053. LEITZ, ERNST, G. M. B. H., WETZLAR, GERMANY. Parts lists and drawings for objectives. (FIAT Microfilm Reel F-28, Frames 5615-6554). 1930-1941. 941 f. Price: Microfilm-$6.00 - Enlargement print-$94.50
This FIAT microfilm reel consists of drawings and parts lists for microscope and projection objectives. Individual items will be available as enlargement prints only; the entire reel may be purchased for $6.00 in microfilm form. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
5615-5638 PB L 73053	Objective Dimar, f = 25 cm. Parts lists and drawings. 1941. In German.	2.50
5639-6002 6511-6554 PB L 73053	Projection objectives Epis. f from 80 mm to 40,00 cm, 1 : 3,6 to 1 : 5. Parts	

lists and drawings. 1933-1941. In German. 41.00

6003-6054 PB L 73053 — Projection objectives Epar, from 400 mm to 600 mm. Drawings and parts lists. 1935-1936. In German. 5.50

6055-6106 PB L 73053 — Projection objectives Elmar, f = 400 mm and f = 600 mm, 1 : 5,6 and 1 : 4.5. Parts lists and drawings. 1930. In German. 5.50

6107-6221 PB L 73053 — Projection objectives Hektor and Hektor Rapid, f from 25mm to 600 mm, 1 : 1,5 to 1 : 2.8. Parts lists and drawings. 1935-1936. In German. 11.00

6222-6307 6350-6419 6439-6445 6450-6496 PB L 73053 — Microscope objectives; models M; JMM; MM 8.3; N; SM; MIM; IM; JB; N; dry and for oil immersion. F from 2,5 mm to 136 mm. A from 1,30 to 0.14, from 1.6 x to 100 x. Parts lists and drawings. 1938-1941. In German. 21.50

6308-6322 6338-6349 6438a-6438b 6445 PB L 73053 — Apochromats AB and JB, f = 4 mm and f = 5 mm, A = 0,95 and A = 0,90. Drawings only. 1940. In German. 3.00

6323-6337 PB L 73053 — Micro reversible system 1 : 1,5. Drawings only. 1940. In German. 1.50

6420-6437 PB L 73053 — Objective Summar, f = 15 mm, 1 : 2,5, with iris diaphragm. Parts list and drawings. 1940. In German. 2.00

6446-6449 PB L 73053 — Objective Tillar, 8 x, 1 : 3, 5. Drawings only. 1940. In German. 1.50

6437-6510 PB L 73053 — Projection objective Epnor, f = 300 mm, 1 : 4,3. Drawings only. 1939. In German. 1.50

* PB L 79585. SCHWARTZ, MORRIS and others. Production means and tooling for Compur shutter rapid no. 00. (FIAT Final Rept 1145). May 1947. 9 p. Price: Limited supply mimeo-$ .25

The report reviews the production means and tooling used for the manufacture of Compur Shutter Rapid No. 00 by Friedrich Deckel in Munich. A line of special machinery originally designed for shutter production only is discussed. The machines referred to are the Universal Engraving Machine, Universal Tool Miller, and Universal Tool Grinder. Photographs are included.

* PB L 78284. SOETBEER, OSCAR F. and others. A study of the optical works of C.A. Steinheil Soehne, Munich. (FIAT Final Rept 1044). Mar 1947. 47 p. Price: Mimeo-$1.25

This report reviews the Optical Works of Steinheil Söhne G.m.b.H. and evaluates their production. It gives information on research of synthetic crystal growing and optical coatings. Reference is made to Microfilm No. 170-G, PB 70381 in vol. 6, p. 309, which comprises all of the drawings of a newly designed miniature camera now ready for production, additional data pertaining to research, and a complete listing of patents. Those patents of preferred interest are microfilmed complete. The appendix is composed of a series of pictures showing various optical instruments and apparatus for spectrochemical analysis and further contains technical data from laboratory reports. A bibliography is also included.

TRANSPORTATION EQUIPMENT

AERONAUTICS

Aircraft

PB L 78627. BAKER, R. J. He-162 maintenance manual. Interim report no. 2. (Project no. MTE-37). (AAF T-2 Translation 1113B). Mar 1947. 78 p. Price: Microfilm-$2.00 - Photostat-$6.00

He-162 is a single-jet, single-seat, fighter plane manufactured by the Heinkel Works at Vienna. The power source is a BMW 109-003 mounted externally on top of the fuselage behind the pilot. The maintenance manual is divided into four sections as follows: Section I, Description, dimensions, and loading particulars; II, shipment and erection procedure; III, Handling and general maintenance instructions; and IV, Major component parts and installations. The text is supplemented by illustrations, photographs, sketches and wiring diagrams.

PB L 78623. BOSCH. Testing of production-scale anticing system in the Me 210 airplane. Fifth part. (AAF T-2 Translation 910). Feb 1947. 14 p. Price: Microfilm-$1.00 - Photostat-$1.00

This report describes the results obtained in three test flights which were to establish the suitability of the thermal anti-icing equipment developed for the Me 210 airplane. Heat is provided electrically and appears to meet all requirements. It is recommended to add windshield anticing. Photographs are included.

PB L 79062. JACKSON, L. R. and GROVER, H. J. Application of data on strength under repeated stresses to the design of aircraft. (Natl Advisory Committee for Aeronautics Rept W-91, AR Rept 5H27). Oct 1945. 40 p. Price: Microfilm-$1.00 - Photostat-$3.00

This report suggests a method whereby information on the strength under repeated stresses of aircraft materials or structural parts can be used in conjunction with information on service loadings as a means of comparing alternative designs. The method has been developed around information on repeated loading in service caused by gusts, because there are, at present, more data available on loads from this source. The method of analysis is flexible enough that information on repeated loadings from other sources than gusts can be added whenever such data become available. A bibliography, data tables, and graphs are included.

PB L 61949. KAUL, H. W. and FILZEK, B. Tension measurements on the LZ 127 "Graf Zeppelin" airship. Final report. (ZBW PB 297/2). n. d. 24 p. Price: Microfilm-$1.00 - Photostat-$2.00

The "DVL, E.V., Berlin-Adlershof" carried out tension measurements on the horizontal and vertical fin of the LZ 127 "Graf Zeppelin". Measuring devices were applied to the areas of maximum average tension. Calm weather was selected for the vertical fin tests and gusty weather for investigations of both fins. Graphs, drawings, and tables of data are included. In German.

PB L 79103. MCCORMACK, GERALD E. Tests of an attack-type airplane in the Ames 40- by 80-foot wind tunnel to improve the high-speed maneuvering control-force characteristics. (Natl Advisory Committee for Aeronautics Rept A-2, Memo Rept A5K16). Nov 1945. 90 p. Price: Microfilm-$2.00 - Photostat-$6.00

Wind-tunnel tests were made of a twin-engine airplane to detemine modifications which would make the airplane suitable

for ground-support attack operations. It was desired to reduce the high-speed elevator and aileron-control forces without either reducing the low-speed control forces or impairing the landing characteristics. A bibliography, diagrams, photographs, and graphs are included.

PB L 79284. OLSON, ROLAND E. and LAND, NORMAN S. The longitudinal stability of flying boats as determined by tests of models in the NACA tank. I. Methods used for the investigation of longitudinal-stability characteristics. (Natl Advisory Committee for Aeronautics Rept L-409). Nov 1942. 39 p. Price: Microfilm-$1.00 - Photostat-$3.00
The present paper is devoted to the discussion of certain methods of testing dynamic models that have been found helpful in the determination of the longitudinal-stability characteristics on the water of a number of specific flying boats. A bibliography, data tables, diagrams, graphs, and photographs are included.

PB L 79125. RODERT, LEWIS A. and CLOUSING, LAWRENCE A. A flight investigation of the thermal properties of an exhaust heated wing de-icing system on a Lockheed 12-A airplane. (Natl Advisory Committee for Aeronautics Rept A-45). Jun 1941. 27 p. Price: Microfilm-$1.00 - Photostat-$2.00
The thermal properties are presented for the exhaust heated wing de-icing system of a Lockheed 12-A airplane which has successfully prevented wing icing in 25 hours of flying in various icing conditions. The quantities of heat supplied for de-icing of the wings under various conditions were measured and are presented. The distribution of temperatures above the ambient air temperature for the wing surface under various operating conditions is given. The design and construction of the wing heating system are described and design factors relative to the weight, maintenance, and the applicability to exhaust heating on other airplanes are discussed. A bibliography, data tables, diagrams, and photographs are included.

PB L 79286. ROGALLO, F. M. and PURSER, PAUL E. Wind-tunnel investigation of a plain aileron with various trailing-edge modifications on a tapered wing. II. Ailerons with thickened and beveled trailing edges. (Natl Advisory Committee for Aeronautics Rept L-228). Oct 1942. 26 p. Price: Microfilm-$1.00 - Photostat-$2.00
An investigation was made in the LMAL 7- by 10-foot tunnel of various modifications to the trailing edge of a 0.155-chord plain aileron on a semispan model of the tapered wing of a fighter airplane. The modifications considered in the present report are various amounts of thickening and beveling of the aileron trailing edge to reduce stick force. The effect of a gap at the aileron nose was determined for the most promising modifications. The stick forces and the rates of roll were estimated for a fighter airplane with the plain and with some of the modified ailerons. A bibliography, data table, diagrams, and graphs are included.

PB L 61502. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTS-WESEN. Technical reports 2, 1935 series, pages 64-122. 1935. 57 p. Price: Microfilm-$2.00 - Photostat-$4.00
These ZWB reports consist of short articles. Titles and authors are as follows: Fuel consumption and heat stress of the ignition motor by K. Löhner and Th. Helmbold; Vibrations of the crankshaft-propeller unit by K. Lärenbaum; Investigations with regard to the lateral stability of airplanes during flight in the vicinity of maximum lift by Quick; The adjustable wooden propeller blade of the Schwarz type by K. Krüger; Signal transmitter by the DVG, Graefolfing; The "whirling arm" of the "Daniel-Guggenheim Luftschiff-Institutes; American planking technique; Decrease of vibration caused by the propulsive unit due to frame work reinforcements; Refueling during flight; Air cooling experiments on the model cylinder test engine with a compressing and drawing cooling air blower by P. Riekert; The DVL pressure measuring instrument by W. von der Mühl; Rear-view mirrors for trainer aircraft by Herb; Necessity for safely operating adjusting devices for rudders by Herb; Break of the ball and socket joints on landing gear by Herb; Gear damage in BMW VI u motors by Herb. A listing of abstracts of current reports from various German research institutions and a bibliography of foreign literature are included. Photographs, drawings and graphs are included. In German.

PB L 61485. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTS-WESEN. Technical reports 3, 1935 series, pages 123-149. Supplement to technical reports #3. 1935. 33 p. Price: Microfilm-$1.00 - Photostat-$3.00
These ZWB reports consist of short articles. Titles and authors are as follows: The state of industrial aircraft engine development and its consequences in regard to research by O. Kurtz; Calculatory determination of the buckling strength of high strength steels by K. Matthaes; Nickel saving steels in the aircraft industry by H. Voss; Decrease of propeller noise; X-ray material test; Research aspects in marine aviation; Notes on assumed loads of seaplanes; Wing and propeller vibrations; Ultrashort waves; Profile wire breaks, by Herb. A listing of abstracts of current reports from German research institutions is included. Tables of data and an appendix. In German.

PB L 61484. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTS-WESEN. Technical reports 4. 1935 series, pages 151-178. 1935. 27 p. Price: Microfilm-$1.00 - Photostat-$2.00
These ZWB reports consist of individual articles. Titles and authors where given are as follows: Development problems in regard to the construction of aircraft engine pistons by E. Koch; Experiences and possibilities of the divided Hirth crankshaft, by Hirth Motoren G.m.b.H.; Fuel transferring device in aerial refueling tests by F. Michael; Experiences with the two-element downwash measuring device for flow direction measurements, by H. Muttray; Damage of control unit parts while not in operation; Influencing the character of vibration of the control surfaces by mass balance of the aileron; Gluing of Kanrit-glued plywood with cold casein glue; Measurements on an angular velocity recorder by Weigand; Incorrect manufacture as causes of accidents by Uding; Propeller damage during diving by Uding; Vertical tubes in fuel tanks as cause of trouble by Uding; Fire while airborne caused by loosening of fuel lines by Uding; Exhaust collecting pipes by Uding. A listing of abstracts of current reports from German research organizations as well as a bibliography of foreign technical papers are included. Drawings, photographs and graphs are included. In German.

PB L 61486. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTSWESEN. Technical reports 5, 1935 series, pages 179-222, Supplement to technical reports 5. 1935. 50 p. Price: Microfilm-$1.00 - Photostat-$4.00
These ZWB reports consists of several articles. Titles and authors are as follows: Work of the technical group for material problems of the VLF by W. Müller von der Heyden; Work of the committee for aerial photography of the VLF by F. Crans; Thoughts in regard to aircraft engine development by W. Kamm; Mechanical stresses in valves of high speed internal combustion engines by P. Noack; Landing of a 10 ton aircraft in the Atlantic; Views with regard to control design; Light metal bearing shells; Ignition troubles caused by rain; Drive of gyroscopic devices in high altitudes; Night direction finding with fixed antennas; Atmospheric discharges; Godron piston rings; Accident through welding cracks by Uding; Pre-determined breaking point in the landing gear; Test results of brake linings. A listing of abstracts of current reports from German research organizations, as well as a bibliography of foreign technical papers, appendix, graphs, drawings and photographs are included. In German.

PB L 61487. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTSWESEN. Technical report 6, 1935 series, pages 223-253. 1935. 30 p. Price: Microfilm-$1.00 - Photostat-$2.00
These ZWB reports consist of a number of short articles. Titles and authors where given are as follows: Engine unit stress due to inertia effects of the propeller, by K. Cramer and F. N. Scheubel; The static stability of control surface units by A. Teichmann/K. Borkmann; Longitudinal stability

of the Cierva Autogiro C 30 by H. Focke; Pressure measurement in the injection line of Diesel engines by Ernst; Investigation of gases blowing through the crankcase of single-cylinder gasoline enginesby Berndorfer; Supercharger data as a measure of motor performance by Brode; Standardization of performance calculations for aircraft motors by Brode; Abstracts of current reports from German research organizations and a bibliography of non-German technical literature are included. Graphs, drawings, tables of data and photographs. In German.

PB L 61488. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTSWESEN. Technical reports 1, 1936 series, pages 1-33. 1936. 32 p. Price: Microfilm-$1.00 - Photostat-$3.00
This ZWB report consists of various articles. Titles and authors are as follows: The impact motion of the lifting propeller by G. Scheppe; Research problems with regard to navigation by Klintzsch; Critique of the lectures given by Capon and Allen at the DVL-VLF assembly from Oct 11 and 12, 1935 in Berlin by W. Kamm; The DVG radio direction finding apparatus EZ111; The new 107/35 E111 radio compass of the DVG; Surface protection of aircraft; Magnetic testing method; The hyproscopic balanced condition of improved lumber and the influence of humidity on material strength properties by Küch; Gluing of plywood with various binding agents by Küch; Protection of rubber edges with rubber by K. Riechers; Investigation of the corroding influence of extinguishing substances for extinguishing gasoline, heavy oil and metal fires by Panschardt. A list of abstracts of current reports from German research organizations are included. Photographs, tables of data, graphs and drawings. In German.

PB L 61489. ZENTRALE FÜR WISSENSCHAFTLICHES BERICHTSWESEN. Technical reports 2, 1936 series, pages 35 to 68. 1936. 33 p. Price: Microfilm-$1.00 - Photostat-$3.00
This ZWB document consists of various articles. Titles and authors when given are as indicated: The DVL standard float, results of systemic model tests with two float designs, by W. Sottorf; Tests with brake flaps on gliders, by Jacobs; Deformation of aerial films due to fast drying with alcoholic watery baths by Bertram; The DFS coordinatograph; Abstracts of reports from German research organizations are included. Photographs, drawings, graphs and tables of data. In German.

Instruments

PB L 78679. HALE, WILSON B. Altitude control, barometric, for B-29, no. 45-21795, for the Mogul Project (project 188-5). (AAF AMC Eng Div Memo Rept TSbPE-673-133) Jun 1946. 4 p. Price: Microfilm-$1.00 - Photostat-$1.00
This document is a report on the construction, installation and testing of a barometric altitude control for use with C-1 automatic pilot in a B-29 airplane, No. 45-21795. Circuit diagram included.

PB L 79197. HARRELL, H. H. Supplementary service test of the Gyrosyn compass. Final report. (Air Proving Ground, Eglin Field Fla. Project 4-45-40). May 1947. 33 p. Price: Microfilm-$1.00 - Photostat-$3.00
The Sperry Gyrosyn compass is an electrical directional gyro synchronized with the earth's magnetic meridian. Tests were made to determine the suitability for use in fighter type aircrafts. Tests are described in detail and results are given with recommendations. Photographs showing the Gyrosyn compass, its components and installation are included.

PB L 67739. LUFTFAHRTGERÄTEWERK HAKENFELDE GmbH. BERLIN, SPANDAU. Regulation and amplification principle of the Siemens LGW automatic pilot. n.d. 48 p. Price: Microfilm-$1.00 - Photostat-$4.00
This document contains an introduction into air navigation, a brief history of the development of automatic navigational controls, and a description of the Siemens LGW (LuftfahrtGerätteWerk) automatic pilot. Drawings, photographs and circuit diagrams included. In German.

PB L 26691-R. U. S. AERONAUTICAL BOARD. Indicator - humidity (small). (For basic report see PB 26691, vol. 3, p. 599). (Army-Navy Aeronautical Standard Drawing AN 7513 rev.). Feb 1947. 1 p. Price: Microfilm-$1.00-Photostat-$1.00

PB L 23843-A2. U. S. AERONAUTICAL BOARD. Indicators; directional gyro. (Amends PB 23843, vol. 2, p. 376, and supersedes Amendment 1) (Army-Navy Aeronautical Specification AN-I-28) May 1947. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21434-A. U. S. AERONAUTICAL BOARD. Indicators; electric turn and ban. . (Amends PB 21434, vol. 1, p.1282). (Army-Navy Aeronautical Specification AN-I-15a). May 1947. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21437-A 4. U. S. AERONAUTICAL BOARD. Indicators; gyro horizon. (Amends PB 21437, vol. 1, p. 1282 and supersedes Amendments 1-3). (Army-Navy Aeronautical Specification AN-I-29). May 1947. 5 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21439-A. U. S. AERONAUTICAL BOARD. Indicators; rate of climb. (For basic specification see PB 21439, vol. 1, p. 1282). (Army-Navy Aeronautical Specification AN-I-33, Amendment 2). Nov 1946. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21442-A2. U. S. AERONAUTICAL BOARD. Indicators; turn and bank, (with amendment no. 2, May 15, 1947). (Army-Navy Aeronautical Specification AN-I-35). Jun 1945. 3 p. Price: Microfilm-$1.00 - Photostat-$1.00
For PB 21442, see v. 1, p. 1282.

PB L 26182-R4. U. S. AERONAUTICAL BOARD. Light assembly - circular formation. (Revision 4 of PB 26182, vol. 3, p. 593). (Army-Navy Aeronautical Standard Drawing AN 3030). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26237-R4. U. S. AERONAUTICAL BOARD. Light assembly - downward recognition. (Revision 4 of PB 26237, vol. 3, p. 594). (Army-Navy Aeronautical Standard Drawing AN 3096). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 26236-R5. U. S. AERONAUTICAL BOARD. Light assembly - electrically retractable landing. (Revision 5 of PB 26236, vol. 3, p. 594). (Army-Navy Aeronautical Standard Drawing AN 3095). Apr 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

PB L 21517-A. U. S. AERONAUTICAL BOARD. Meters; gyro stabilized drift, (with amendment no. 1, May 15, 1947).

Instruments (contd)

(Army-Navy Aeronautical Specification AN-M-17a). Mar 1945. 2 p. Price: Microfilm-$1.00 - Photostat-$1.00
PB 21517 is listed in v. 1, p. 1282.

PB L 26317-R4. U. S. AERONAUTICAL BOARD. Switch - low travel limit. (Revision 4 of PB 26317, vol. 3, p. 595). (Army-Navy Aeronautical Standard Drawing AN 3210). May 1947. 1 p. Price: Microfilm-$1.00 - Photostat-$1.00

Engines and Propellers

PB L 79271. BIERMANN, DAVID and TURNER, L.I., JR. Ground-cooling and flight tests of an airplane equipped with a nose-blower engine cowling. (Natl Advisory Committee for Aeronautics Rept L-478). Oct 1939. 28 p. Price: Microfilm-$1.00 - Photostat-$2.00
Flight and ground-cooling tests were conducted with a Northrop attack airplane (Air Corps designation, A-17A) to determine the merits of a nose-blower engine cowling designed and built at the N.A.C.A. Laboratory. The chief object of the tests was to determine the cooling characteristics of the nose blower, particularly for ground and low-speed operation. Of secondary interest was the effect on the speed or drag of the airplane. A bibliography, diagram, graphs, and photographs are included.

PB L 79256. BIERMANN, DAVID and others. Wind-tunnel tests of single and dual rotating tractor propellers of large blade width. (Natl Advisory Committee for Aeronautics Rept L-385). Sep 1942. 54 p. Price: Microfilm-$2.00 - Photostat-$4.00
Tests of 10-foot diameter, single- and dual-rotating tractor propellers having from two to eight blades were conducted in the NACA 20-foot propeller-research tunnel of the Langley Memorial Aeronautical Laboratory. This work was a continuation of previous investigations of tractor propellers. The test program differed from the previous investigations only in the respect that the blades used were 50 percent wider than those previously employed. The propellers were mounted at the front end of a streamline body with a symmetrical wing in the slipstream. A bibliography, diagram, photograph, and numerous graphs are included.

PB L 79291. BREVOORT, M. J. and others. The reduction of nonuseful pressure losses on aircooled engine cylinders by means of improved finning and baffling. (Natl Advisory Committee for Aeronautics Rept L-686). Feb 1943. 6 p. Price: Microfilm-$1.00 - Photostat-$1.00
A detailed analysis of the pressure drop that is required to cool a typically baffled radial engine shows that a total pressure drop of 58 pounds per square foot in necessary at sea level and 112 pounds per square foot is required at an altitude of 40,000 feet (assuming that the engine develops the same horsepower at both altitudes).

PB L 79134. CRIGLER, JOHN L. and TALKIN, HERBERT W. Propeller selection from aerodynamic considerations. (Natl Advisory Committee for Aeronautics Rept L-363). Jul 1942. 31 p. Price: Microfilm-$1.00 - Photostat-$3.00
A theoretical analysis is presented of the performance of propellers extending to high values of V/nD. At high values of V/nD the analysis shows the propeller efficiency to be critically dependent on the distribution of the load along the radius. A method of calculating the pitch distributions of optimum propellers is explained. Charts are presented that facilitate the selection of the most efficient propellers over a wide range of operating conditions. It is noted that experimental data in the range of high values of V/nD for the purpose of establishing the optimum load distribution are essentially lacking. A bibliography and data tables are included.

PB L 67728. GERMAN REICHSLUFTFAHRTMINISTERIUM UND OBERBEFEHLSHABER DER LUFTWAFFE. Bosch electrical aircraft equipment. Instruction tables and explanations. Nov 1942 59 p. Price: Microfilm-$2.00 - Photostat-$4.00
This volume contains photographs and circuit diagrams of aircraft equipment manufactured by the Robert Bosch G.m.b.H. including inertia type starters, generators, magnetos, etc., accompanied by brief description and operating instructions. In German.

LAND TRANSPORTATION

PB L 73996. MINISTERIAL DOCUMENTS BRANCH, BERLIN. Construction of railroads and railroad cars. (FIAT Microfilm Reel F 249, Frames 814-1712). 1933-1944. 898 f. Price: Microfilm-$6.00 - Enlargement print-$90.00
This reel, prepared by FIAT investigators in Germany, contains documents of the "Reichsverkehrs-ministerium". The individual articles are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
814-940 PB L 73996	Adding of substances to concrete measures for saving lumber for sleepers and railroad cars. In German.	$13.00
941-1208 PB L 73996	Reports on the use of tar oil and other substitutes for the impregnation of lumber. In German.	27.00
1209-1228 PB L 73996	The Osmosis impregnating method and its theory by Carl Sohmittutz, dated Jun 1937. In German.	2.00
1229-1285 PB L 73996	More reports and correspondence on the impregnation of lumber. In German.	4.00
1286-1432 PB L 73996	Instructions as to the admissible load of the building ground and the pole foundation, as well as a draft for a new standard specification for this purpose. In German.	17.00
1433-1474 PB L 73996	Directions for welded steel construction, working regulations for hydraulic rail brakes and movable ramp bumping posts. In German.	4.50
1475-1484 PB L 73996	Welded wheel sets. In German.	1.50
1485-1503 PB L 73996	Addition to patent 690 012 - class K, group 7 on "Swivelling traction and pusher attachments". Drawings included. In German.	2.00
1504-1543 PB L 73996	Repair of locomotive axle bearings and rod carriers as well as the use of felt pads in rod carriers. In German.	4.00
1544-1589 PB L 73996	Bearing slides with sectional drawings. In German.	9.00
1590-1612 PB L 73996	Oxygen blasting method. In German.	2.50
1613-1712 PB L 73996	Correspondence on saving steel in railroad superstructures in France and	

a French report on static stress calculations of railroad tracks. In German. 10.00

PB L 73988. MINISTERIAL DOCUMENTS BRANCH, BERLIN. Railroad engineering. (FIAT Microfilm Reel B-246, Frames 7464-8299.) 1936-1944. 836 f. Price: Microfilm-$6.00 - Enlargement print-$84.00
This reel, prepared by FIAT investigators in Germany consists of test reports and investigations regarding railroad maintenance and repair. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items from this reel. In German.

Frames	Title	Price
7464-7468 PB L 73988	Heating systems in railroads. n. d. In German.	1.50
7469-7477 PB L 73988	Various wood gas generators. n. d. In German.	1.50
7478-7481 PB L 73988	Oil and dustproof locomotive bearings with forced lubrication and shock absorption. n. d. In German.	1.50
7482-7533 PB L 73988	Reports and correspondence on bearings of locomotives, incls with Neumann bearings, rod bearings and the like. n. d. In German.	5.50
7534-7548 PB L 73988	Lubrication of bearings. n. d. In German.	1.50
7549-7766 PB L 73988	See frames 7482-7533.	2.00
7767-7788 PB L 73988	Report of the "Deutsche" Kraftfahrtforschung on "Bearing investigations of dynamic stress", by Rudolf Strohauer, Berlin, 1943. In German.	2.50
7789-7827 PB L 73988	Reports and drawings of electric indicators. n. d. In German.	4.00
7828-7868 PB L 73988	Investigations on causes of derailing. n. d. In German.	4.00
7869-7904 PB L 73988	Critical views on the locomotive series 50 and proposals for an improved design. n. d. In German.	3.50
7905-7911 PB L 73988	Memorandum with regard to coal dust firing of locomotives. n. d. In German.	1.50
7912-7922 PB L 73988	Jet type shock absorber. n. d. In German.	1.50
7923-7954 PB L 73988	Causes of wheel breaks and wear and axle brakes. n. d. In German.	5.50
7955-7959 PB L 73988	Directive on the conversion of Siemens-Martin steel and Elektro steel deliveries to Thomas steel, dated Nov 6, 1942. In German.	1.50
7960 PB L 73988	Axle shafts of Thomas steel. n. d. In German.	1.50
7961-7966 PB L 73988	Conversion of small locomotives to generator gas. n. d. In German.	1.50
7967-8061 PB L 73988	Various gas generator models with explanatory descriptions and drawings. n. d. In German.	9.50
8062-8064 PB L 73988	Anti-incrustant or soda. n. d. In German.	1.50
8065-8163 PB L 73988	Meeting report with appendices and sectional drawings of the Committee "Verbindung Reichsbahn" within the special committee on locomotives given at Arnstadt on Dec 1 and 2, 1942. The topic of this conference pertained to railroad engineering. n. d. In German.	10.00
8164-8299 PB L 73988	Report and investigations on snow ploughs as used for locomotives. n. d. In German.	13.50

PB L 73977. MINISTERIAL DOCUMENTS BRANCH, BERLIN, GERMANY. Railroad engineering. (FIAT Microfilm Reel B 246, Frames 8300-9025) 1940-1944. 725 f. Price: Microfilm - $6.00 - Enlargement prints - $72.50
This reel prepared by FIAT investigators in Germany consists of reports on railroad operation and correspondence with industrial firms. Photographs, drawings, graphs and tables of data are included with some of the reports. Individual items as listed below will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
8300-8313 PB L 73977	Russian snow ploughing trains. In German.	$1.50
8314-8477 PB L 73977	Reports on running tests including appendices. In German.	16.50
8478-8528 PB L 73977	Stress measurements on wheel hubs. In German.	5.50
8529-8550 PB L 73977	New developments on battery driven railroad locomotives. In German.	2.50
8551-8598 PB L 73977	Super heaters for wartime locomotives. In German.	5.00
8599-8631 PB L 73977	Speed train, model Geissen (Frames 8600-8609 badly reproduced.) In German.	3.50
8632-8661 PB L 73977	Movable electric butt-welding installation for rails. In German.	3.00
8662-8693 PB L 73977	Movable electric rail welding set-up, particularly a model of Rumanian origin. In German.	3.50
8694-8742 PB L 73977	Tests with Heinl injection type pre-heating installations. In German.	5.00
8743-8746 PB L 73977	Correspondence on a Borsig test locomotive. In German.	1.50
8747-8771 PB L 73977	Approximate performance calculation for speed freight locomotives with single axle drive and Rödder turbines. In German.	2.50
8772-8782 PB L 73977	Electric devices for steel works. In German.	1.50
8783-8856 PB L 73977	Grease lubrication of steam-operated locomotives. In German.	7.50
8857-8918 PB L 73977	Maybach-AEG-Voith power transmission "Mekydrof" In German.	6.50
8919-8937 PB L 73977	Emert bearings. In German.	2.00
8938-9025 PB L 73977	Prize competition of the "Wissenschaftliche Vereinigung für Verkehrswesen E.V., Berlin," on the research of lubricating operating rod of locomotives. In German.	19.00

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MISCELLANEOUS

PB L 74837. ERLANGEN, GERMANY, UNIVERSITY. A collection of doctors' theses. (FIAT Microfilm Reel P-107, Frames 3615-4615) 1938-1939. 1001 f. Price: Microfilm - $6.00 Enlargement prints - $100.50
The documents reproduced on this FIAT microfilm reel cover the following fields: chemistry, mathematics, agriculture sanitation, nutrition, mechanics, theatrical arts, etc. The individual items are listed below and will be available as enlargement prints only. They were obviously seized at the library of the above university. Please include PB and frame numbers when ordering particular theses.

Frames	Title	Print
3615-3664 PB L 74837	Metal roof-top ornaments. By B. Fendrich, 1939. In German.	$5.00
3665-3702 PB L 74837	The stage at Danzig in the first half of the 17th century. By G. Gross, 1939. In German.	4.00
3703-3744 PB L 74837	Experiments on the problem of judging the duration of drinking water pollution by bact.coli according to the Eijkman method. By O. Handrich, 1939. In German.	4.50
3745-3757 PB L 74837	Contribution to the knowledge of the structure of the alkali hydroxides. By A. Helms, 1939. In German.	1.50
3758-3766 PB L 74837	Contribution to the knowledge of vanadium-chalkogenides. By E. Hoschek, 1939. In German.	1.50
3767-3817 PB L 74837	Cattle breeding and pedigree registry in the woiwodeship Pommerellen. By K.H. König, 1938. In German.	5.50
3818-3866 PB L 74837	The community meadow and its significance for the farmers' enterprises in Pomerania. By E. Kroehn, 1939. In German.	5.00
3867-3916 PB L 74837	Management and economic results of German farming enterprises in Pommerellen. By H. Kuss, 1939. In German.	5.00
3917-3942 PB L 74837	Hygienic examinations on the addition of cellulose meal to food according to Herbst. By K.H. Langefeld, 1939. In German.	3.00
3943-3954 PB L 74837	Contributions to the knowledge of alkali metal chalkogenides. By P. Langmesser, 1939. In German.	1.50
3955-3964 PB L 74837	Cathodic reduction of aromatic nitroso compounds below the potential necessary for the separation of hydrogen. By A. Lenz, 1939. In German.	1.50
3965-3972 PB L 74837	The action of substituents on the properties of functional and chromophoric groups. By H. Lührmann, 1939. In German.	1.50
3973-4025 PB L 74837	The formation of soil on siltbanks of "Frische Nehrung". By K. Müller, 1939. In German.	5.50
4026-4091 PB L 74837	Traffic in coal within Poland. By B. Mynett, 1939. In German.	6.50
4092-4118 PB L 74837	"People" and "masses" as Grabbe's stage direction problem. By H. Pieper, 1939. In German.	3.00
4119-4245 PB L 74837	The Vistula river and its development. By P. Rehder, 1939. In German.	3.00
4246-4265 PB L 74837	The action of sulfur in the catalytic high pressure hydrogenation. By H. Brendlein, 1938. In German.	2.00
4266-4289 PB L 74837	The tanning power of iso and hetero polyacids. By H. Erdmann, 1939. In German.	2.50
4290-4309 PB L 74837	Morphology and heat economy of succulents. By F. Herzog, 1938. In German.	2.00
4310-4338 PB L 74837	Studies on a current pulse electrolysis. By W. Monsberg, 1938. In German.	3.00
4339-4353 PB L 74837	Structural elements of amorphous ferric hydroxides. By E. Kalippke, 1939. In German.	1.50
4354-4396 PB L 74837	Contribution to the knowledge of the field distribution in the air space of the asynchronous engine. By W. Kehse, 1938. In German.	4.50
4397-4409 PB L 74837	I. Chalkogenides of the divalent europium and ytterbium. II. Magnetochemical studies on heavy metal complex compounds of phthalocyanine. By H. Senff, 1939. In German.	1.50
4410-4423 PB L 74837	On the crystal structures of alkalihydrochalkogenides. By W. Teichert, 1939. In German.	1.50
4424-4462 PB L 74837	Friction rolling tests for steel rolls. By H. Tuschy, 1938. In German.	4.00
4463-4494 PB L 74837	Calculation of statically indefinite frame supports by means of the deformation method. By G. Wollmann, 1938. In German.	3.50
4495-4500 PB L 74837	The approximation of analytical functions by means of polynomials. By P. Weuser, 1939. In German.	1.50
4501-4561 PB L 74837	Studies on formation and tanning properties of simple syntans from phenol sulfonic acids condensed with formaldehyde. By H. Boensel, 1939. In German.	6.50
4562-4583 PB L 74837	Studies on pterins. By A. Kottler, 1939. In German.	2.50
4584-4590 PB L 74837	The oxalic ester process for the synthesis of polyene dicarboxylic acids. By J. Michel, 1938. In German.	1.50
4591-4615 PB L 74837	Studies on the product of the acid rearrangement of thebain quinone (flavo thebaon). By W. Petri, 1938. In German.	2.50

PB L 70105. ERLANGEN, GERMANY, UNIVERSITY. A collection of doctors' theses and postgraduate research papers. (FIAT Microfilm Reel C 263 Frames 4407-5318). 1937-1943. 650 f. Price: Microfilm-$6.00 - Enlargement print -$65.00.
The documents reproduced on this FIAT microfilm reel cover the following fields : Chemistry, physics, biology, geology, botany, electrical engineering, agriculture, zoology, etc. Individual items are listed below and will be available as enlargment prints only. Please include PB and frame numbers when ordering particular publications from this microfilm reel. In German.

Frames	Title	Price
4407-4424 PB L 70105	Data on the mode of action of contact poisons with special regard to the permeability of the cuticula of insects. By J. Bredenkamp, 1941. In German.	$2.00

4425-4445 PB L 70105 — The mathematical problem of aberration-free reflecting lenses. By W. Enke, n.d. In German. 2.50

4446-4460 PB L 70105 — Calculation of friction and load capacity of a slide block of finite width on a plane surface slide. By W. Frossel, 1941. In German. 1.50

4461-4465 PB L 70105 — The three component system iron-zirconium-sulfur. By A. Hartung, 1942. In German. 1.50

4466-4470 PB L 70105 — The system iron-iron sulfide-aluminum sulfide-aluminum. By Franz Hillen, 1942. In German. 1.50

4471-4494 PB L 70105 — The occurrence of microorganisms in vegetable textures (based on examinations of seeds). By O. Marcus, n.d. In German. 2.50

4495-4537 PB L 70105 — Investigations of the expenditure of work in an agricultural enterprise with special regard to different kinds of produce. By G. Quack, 1940. In German. 2.50

4538-4555 PB L 70105 — Turbulent expansion of a current of heated air. By W. Schmidt, 1941. In German. 2.00

4556-4579 PB L 70105 — The formation of red earth on permian limestone and devonain mass-limestone in the Western German region. By E. Welte, 1942. In German. 2.50

4580-4609 PB L 70105 — Surface energy and coordination number. By R. Grafe, 1942. In German. 3.00

4610-4635 PB L 70105 — Possibilities of increasing the protein yield of alfalfa by cultivating for light protein content. By E. Pause, 1941. In German. 3.00

4636-4648 PB L 70105 — Comparative oxidation experiments with vanillin and lignin. By H. Richtsenhain, 1943. In German. 1.50

4649-4672 PB L 70105 — The optical -electric properties of "Lenard" phosphors. By L. Wesch, 1941. In German. 2.50

4673-4727 PB L 70105 — Examination of the density of coarse grained and finely pulverized substances. By A. H. Ott, 1942. In German. 5.50

4728-4733 PB L 70105 — Influences of terrain on the direction-finding with meter waves. By Heinz Guyenot, 1942. In German. 1.50

4734-4743 PB L 70105 — Constitution and magnetic behavior of metal ketyls. By W. Janke, 1941. In German. 1.50

4744-4773 PB L 70105 — Applicability of the barretter for measuring the dielectric constants and the conductivity of dipole liquids with ultra-short waves. By O. Schultze, 1939. In German. 3.00

4774-4779 PB L 70105 — The magneto catalytic effect in hydrogenation. By H. Spindler and O. Reinhard, 1942. In German. 1.50

4780-4791 PB L 70105 — The supplementary supply of electrons in the Corona discharge at low pressures. By W. Christoff, 1937. In German. 1.50

4792-4858 PB L 70105 — Missing.

4859-4874 PB L 70105 — Relations between root-contained potassium according to Neubauer and potassium available for plants in Thuringian cultivated soils. By C. Schwerdt, 1941. In German. 2.00

4875-4942 PB L 70105 — Missing.

4943-4969 PB L 70105 — Chromatographic examination of medicinal preparations and alkaloid salts. By W. Klein, 1941. In German. 3.00

4970-4992 PB L 70105 — Studies on the relation of anatomical and morphological properties of the leaf to its heat economy. By M. Alsac, 1941. In German. 2.50

4993-5002 PB L 70105 — Studies on secondary sterols of yeast (data on zymosterol.) By H. Wieland and others, 1941. In German. 1.50

5003-5027 PB L 70105 — The scent of species and individuals of fish. By H. Götz, 1941. In German. 2.50

5028-5032 PB L 70105 — Studies on exchange reactions of the chlorine isotopes 35 and 37. By H. Haimerl, 1941. In German. 1.50

5033-5072 PB L 70105 — The cyclomorphosis of the daphnias of some lakes of the Lower Alps. By Hsi-ming Hiang, 1940. In German. 4.00

5073-5090 PB L 70105 — The mechanism of the decomposition of hypophosphite based on experiments with deuterium as an indicator. By J. Wünch, 1940. In German. 2.00

5091-5100 PB L 70105 — Studies on secondary sterols of yeast. The constitution of ergosterol, fecosterol, episterol, and neosterol. By F. Rath, 1941. In German. 1.50

5101-5186 PB L 70105 — Missing.

5187-5195a PB L 70105 — The mechanism of the formation of propylene and propane in the electrolysis of butyric acids. By K. Schanzer, 1941. In German. 1.50

5196-5218 PB L 70105 — Missing.

5219-5231 PB L 70105 — The importance of the breathing ventricle of labyrinth fishes for their hearing ability. By H. Schneider, 1941. In German. 1.50

5232-5246 PB L 70105 — The training of the minnow and its dependency on the weather. By T. Schreiner, 1941. In German. 1.50

5247-5264 PB L 70105 — The floating of amphibia. By M. Speer, 1941. In German. 2.00

5265-5280 PB L 70105 — Missing.

5281-5310 PB L 70105 — Color and color change of the crab-spider Misumena vatia. By G. Weigal, 1941. In German. 3.00

5311-5318 PB L 70105 — "Molecular rearrangements" of acylated aromatic amines. By W. Wilckens, 1941. In German. 1.50

PB L 70105-S. ERLANGEN, GERMANY, UNIVERSITY. A collection of doctors' theses and postgraduate research papers. (Fiat Microfilm Reel C 263, Frames 4407-5318, abstract cards). 1937-1943. 33 p. Price: Microfilm-$1.00 Photostat-$3.00.
These are short abstracts of the items on reel C 263 (PB 70105) described above. They were prepared by FIAT abstracters in Germany.

PB L 74126. ERLANGEN, GERMANY, UNIVERSITY. A collection of doctors' theses and postgraduate research papers.

(FIAT Microfilm Reel C 264, Frames not numbered consecutively). 1940-1943. 959 f. Price: Microfilm-$6.00 - Enlargement print-$96.50.
This FIAT microfilm reel consists of items in the fields of zoology, chemistry, physics, medicine, meteorology, biology, and geography. The material was obviously seized in the library of the above university. Individual items are listed below and will be available as enlargement prints only; the entire reel may be purchased in microfilm form for $6.00. Please include PB and frame numbers when ordering individual items from this microfilm reel. In German.

Frames	Title	Price
5319-5381 PB L 74126	Endowment insurance. By L. V. Baranow, 1942. In German.	$6.50
5382-5387 PB L 73126	Reflection measurements on rhodium layers in the short-wave infrared part of the spectrum. By M. Dühnke, 1940. In German.	1.50
5388-5414 PB L 73126	Study of quinones and acetyl derivatives in the series of pseudo brucine and pseudo strychnine. By Yu-Charng Hwang, 1942. In German.	3.00
5415-5440 PB L 73126	The global distribution of the "equivalent temperature" and its significance for vegetation. By E. Krüger, 1942. In German.	3.00
5441-5471 PB L 73126	Regarding the biology of fishery of the Mývatn lake, Northern Iceland. By K. Lamby, 1942. In German.	3.50
5472-5500 PB L 73126	Contribution to the biology of Osmerus eperlanus L. By J. Leskien, 1942. In German.	3.00
5503-5550 PB L 73126	Meteorological phenomena in Southern Germany as a result of warm air transports across the massive of the Alps. By G. Lorenz, 1941. In German.	5.00
5551-5567 PB L 73126	Dermatoglyphics of the population of the island of Urk. By H. T. Piebenga, 1941. In German.	2.00
5568-5598 PB L 73126	The species of the genus Cabus. By B. von Pusch, 1941. In German.	3.50
5599-5607 PB L 73126	The normal semi-conductor photoelectric voltage of a metal-cuprous oxide - metal cell. By W. Rohde, 1942. In German.	1.50
5608-5676 PB L 73126	"Wärtlingszüge" : Morphological studies in medium mountain ranges in Germany. By E. v.d.Sahle, 1942, In German. Parts of this document may not reproduce well.	7.00
5677-5707 PB L 73126	The hollow scales of Boraginaceae. By H. Schaefer, 1942. In German.	3.50
5708-5726 PB L 73126	Manias in rabbits and its hereditary transmission. By C. Schmecke, 1941. In German.	2.00
5727-5782- PB L 73126	Geographical distribution of the large estates of eastern Pomerania and its background : Attempt to attribute the distribution of large estates along the north-eastern border of Germany to geographical and economic factors and to historicl development. By S. Schneider, 1942, In German. Parts of this document may not reproduce well.	6.00
5783-5809 PB L 74126	Synthesis of N-alkyl benzimidazoles and N-alkyl imidazolopyridines. By G. Train, 1942. In German.	3.00
5810-5832 PB L 74126	Morphology of the statocysts in Stylommatophora with respect to the body structure and biology of the animals. By J. Ulrich, 1942, In German.	2.50
5833-5935 PB L 74126	The Book of Salerno on the requirements of plain drugs, translated from the original manuscript into modern German and provided with comments. By M. Woidt, 1942, In German.	10.50
5936-5965 PB L 74126	The chromosomes involved in the spermatogenesis of certain Nematocera. By E. Wolf, 1942, In German.	3.00
5966-6005 PB L 74126	The transition from the romantic natural philosophy (applied to zoology) to the exact science of zoology, as explained by the Carl Gustav Carus's and Julius Victor Carus's schools of thought. By E. Wunsch, 1941. In German.	4.00
6006-6010 PB L 74126	Address of indoctrination and consecration for the dead, delivered by the president of the Georg-August University of Göttingen on November 19, 1939. No further dates. In German.	1.50
6011-6054 PB L 74126	Substances having the carbon skeleton of cantharidin. By G. Schenck, 1939. In German.	4.50
6055-6064 PB L 74126	Oxidation of optically active camphene with lead tetraacetate. By F. Neumann, 1940. In German.	1.50
6065-6083 PB L 74126	On the knowledge of digitalose. By W. Mayer, 1940. In German.	2.00
6084-6116 PB L 74126	Changes of place and dielectric relaxation in amorphous solids. By W. Holzmüller, 1941. In German.	3.50
6117-6197 PB L 74126	Conditions of precipitation, rain farming, and artificial irrigation in the Union of South Africa. By D. Hafemann, 1943. In German.	8.50
6198-6221 PB L 74126	Investigations on the crystalline structures of the triphenyls of bismuth, arsenic, and antimony. By J. Werzel, 1942. In German.	2.50
6222-6240 PB L 74126	Structure of the melanophores of the frog, established especially through phase contrast investigations. By M. Bakowski, 1942. In German.	2.00
6241-6251 PB L 74126	Microchemical determination of acetyline groups in organic compounds. By E. Wiesenberger, 1942, In German.	1.50
6252-6260 PB L 74126	Studies regarding the degree of purity of officinal drugs : a contribution to their standardization. By W. Rapp, 1942. In German.	1.50
6261-6269	Identical with the foregoing.	
6270-6296 PB L 74126	Corrosion experiments with calcite, rhodochrosite, and siderite. By A. Boos, 1942. In German.	3.00
6297-6340 PB L 74126	Morphological and anatomical studies of the genus Streptocarpus Lindl. By W. Schenk, 1942. In German.	4.50
9232-9244 PB L 74126	Investigations on the gliding tendons of dogs and rabbits. By H. Keil, n.d. In German.	1.50
5841-5856 PB L 74126	The shape of the liver of an adult armadillo with nine cinctures. By W. Erhart, 1939. In German.	2.00
2537-2543 PB L 74126	Title page missing. Report on tuberculosis of the breast in a 23-year-old	

roman, with intensive swelling of the regional lymph nodes. By Winckelmann, n.d. In German. 1.50

PB L 73739 ERLANGEN, GERMANY. UNIVERSITY. Doctoral dissertations in various fields. (FIAT Microfilm reel P 105, Frames 1678-2660) 1937-1939. 993 f.
Price: Microfilm - $6.00 - Enlargement print - $99.50
This reel on various technological problems was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Titles	Price
1678-1702 PB L 73739	The computation of costs of mining damage in the Ruhr district. Mar 1938. In German.	$2.50
1703-1711 PB L 73739	Kinetic investigations of the benzophenon synthesis according to Friedel-Crafts. 1938. In German.	1.50
1712-1741 PB L 73739	Data on the reaction mechanism at the decomposition of technically pure saccharose solutions within a temperature range from 50-100°C. 1939. In German.	3.00
1742-1772 PB L 73739	The melting behavior of coke coal dependent on the oxidation, hydrogenation and the action of boric acid. 1939. In German.	3.50
1773-1812 PB L 73739	Plant supervision on a working time basis. 1938. In German.	4.00
1813-1824 PB L 73739	Permeability of step filters and application of a filter to determine the ultraviolet permeability of the hot springs water from Aachen. 1938. In German.	1.50
1825-1878 PB L 73739	Data on the settling operation. 1939. In German.	5.50
1879-1897 PB L 73739	Contribution to the television problem: The luminescent mixture. 1937. In German.	2.00
1898-1917 PB L 73739	Studies on the chemistry of the beta-pinene. 1939. In German.	2.00
1918-1986 PB L 73739	General consideration on the formulary and graphical evaluation of physical and technical processes. 1939. In German.	7.00
1987-2022 PB L 73739	Rayon with a non-crumpling property by means of artificial resins. 1939. In German.	4.00
2023-2044 PB L 73739	Hydrogen halide addition products of the abietic acid and some of its esters. 1938. In German.	2.50
2045-2072 PB L 73739	Investigations on the operation of shaking screens in iron ore dressing plants. 1939. In German.	3.00
2073-2094 PB L 73739	A quantitative spectroscopic determination of arsenic in technical varieties of copper. 1938. In German.	2.50
2095-2116 PB L 73739	Lagrange's projections. 1939. In German.	2.50
2117-2179 PB L 73739	The efficiency of streets. 1939. In German.	6.50
2180-2229 PB L 73739	The dyeing properties of animalized cellulose fibers with acidic wool dyestuffs. 1939. In German.	5.00
2230-2255 PB L 73739	The fixation of phosphoric acid by a permutite containing calcium. 1937. In German.	3.00
2256-2325 PB L 73739	Raw material supply for the motor vehicle and fuel industry. 1939. In German.	7.00
2326-2373 PB L 73739	Commercial garage accomodations. 1938. In German.	5.00
2374-2441 PB L 73739	Theoretical considerations of the economy of materials in railroad maintenance. 1939. In German.	7.00
2442-2487 PB L 73739	The animalization of cellulose fibers by the addition of nitrogen-containing resins to the viscose. 1938. In Germnn.	5.00
2488-2572 PB L 73739	The development of the motor vehicle and pedestrian traffic of the modern city and its influence on the mutual relations of the moving and parked vehicles. 1939. In German.	8.50
2573-2618 PB L 73739	Terrestrial magnetism investigations in the Brocken massive. 1939. In German.	5.00
2619-2647 PB L 73739	Connection between the colloidochemical as well as soil-physical code numbers of binding soils and frost action. 1938. In German.	3.00
2648-2660 PB L 73739	The degree of fluidity of low smelting mixtures of some metal oxides important for the slagging of igneous rocks. 1939. In German.	1.50

PB L 73739-S. ERLANGEN, GERMANY. UNIVERSITY. Doctoral dissertations in various fields. (FIAT microfilm Reel P 105, Frames 1678-2660, abstract cards.) 1937-1939. 27 p. Price: Microfilm -$1.00 - Photostat - $2.00
Brief abstracts of the individual items on the above reel P 105, PB 73739, prepared by FIAT personnel in Germany.

PB L 73751. ERLANGEN, GERMANY, UNIVERSITY. Doctors' theses in the fields of veterinary medicine and animal culture. (FIAT Microfilm Reel D 186, Frames 5326-6303) 1926-1939. 978 f. Price: Microfilm-$6.00 - Enlargement print-$98.00
This FIAT microfilm reel consists of reproductions of doctors' theses in the field of veterinary medicine and animal breeding. The material was apparently seized in the library of the above university. Individual items will be available as enlargement prints only, as listed below. When ordering an individual report please give PB and frame numbers. These reports are in German.

Frames	Title	Price
5326-5341 PB L 73751	Nature and control of the influenza of young pigs and the "Snuffle disease" of hogs. 1939. In German.	$2.00
5342-5355 PB L 73751	Etiology of jaundice in animals. 1939. In German.	1.50
5356-5373 PB L 73751	Mamma tumors in dogs and cats. 1939. In German.	2.00
5374-5401 PB L 73751	The history of butcher guilds, slaughter-houses, meat inspection, flaying, veterinarians, and breeding of animals in Rechlitz, the town of Rechlitz, Saxony, and its surrounding area. 1939. In German.	3.00
5402-5422 PB L 73751	Angiomatous neoplasms. 1938. In German.	2.50
5423-5444 PB L 73751	The properties of parchment skins (for sausages) compared with natural guts. 1939. In German.	2.50

Miscellaneous (contd)

5445-5489 PB L 73751 Reactive changes in the white blood count in cases of surgical diseases of horses. 1939. In German. 4.50

5490-5509 PB L 73751 Characteristics of the spleen of domestic mammals with respect to species: (horses, cattle, sheep, goats, pigs, dogs, cats, rabbits, and guinea pigs). 1939. In German. 2.00

5510-5544 PB L 73751 Research on "Targesin" as a drug. 1939. In German. 3.50

5545-5572 PB L 73751 The therapeutic experiments with tonephosphan in veterinary medicine. 1939. In German. 3.00

5573-5585 PB L 73751 Research on the forms of tuberculosis in slaughtered cattle. 1939. In German. 1.50

5586-5601 PB L 73751 Information on the anatomy of the respiratory system of Lepus timidus Schreb. (First report on specific intestinal differences between hare and rabbit). 1939. In German. 2.00

5602-5625 PB L 73751 Investigations on the forms of tuberculosis in cattle. 1939. In German. 2.50

5626-5650 PB L 73751 Investigations on the pulpe cavity of maxillary molars of horses. 1939. In German. 2.50

5651-5657 PB L 73751 Experiments on the transmission of Borna's disease of horses to chickens. 1939. In German. 1.50

5658-5699 PB L 73751 Clinical observations and therapeutic experiments on the last multiple occurrence of the so-called Stuttgart dogs' epidemic at Munich during 1936-1937. 1938. In German. 4.50

5700-5726 PB L 73751 Further information on respiratory sinus arrhythmia in dogs. 1939. In German. 3.00

5727-5745 PB L 73751 Experiments on blood-clotting agents, carried out with horses and dogs. 1938. In German. 2.00

5746-5762 PB L 73751 The effect of dichlorodiethyl sulfide on lower animals. 1939. In German. 2.00

5763-5783 PB L 73751 Gangrenous inflammation of the udder, prevailing among the Württemberg sheep stock. 1939. In German. 2.50

5784-5801 PB L 73751 Sinus arrythmie: arrhythmie. 1939. In German. 2.00

5802-5879 PB L 73751 The influence of the "Pinzgau" type horse in the breeding of "Oberländer" type horses in Upper Bavaria and Franconia. 1938. In German. 8.00

5880-5902 PB L 73751 Experiments on Lachesis Bengen. (Snake poison preparation) 1939. In German. 2.50

5903-5954 PB L 73751 Experiments on disinfection in cases of tuberculosis with regard to practical conditions and with application of the culture method. 1939. In German. 5.50

5955-5973 PB L 73751 Investigations on possible relations between preputial catarrh and nephritis in dogs. 1938. In German. 2.00

5974-6009 PB L 73751 The organization of breeding of piebald cattle of the "Landesökonomierat" Johann Jodlbauer at Hillerod (Rottal). 1938. In German. 4.00

6010-6045 PB L 73751 May the pH value be used for estimation of the degree of spoilage of sausages, and has it any relation to the number of germs present in them? 1939. In German. 4.00

6046-6075 PB L 73751 Development and state of the Baden Warm-blood breeding. 1939. In German. 3.00

6076-6102 PB L 73751 Influencing egg laying of fowls by means of hormones. 1938. In German. 3.00

6103-6137 PB L 73751 The composition of two important breeds of Schwaben piebald cattle. 1939. In German. 3.50

6138-6187 PB L 73751 Some female blood-lines of grey-brown highland cattle. 1938. In German. 5.00

6188-6212 PB L 73751 Treatment of the nervous tyre of distemper of dogs with Luminal sodium and Prominal. 1939. In German. 2.50

6213-6262 PB L 73751 Research on the transmission by the bulls, of the butterfat content of the milk of Bavarian highland piebald cattle. 1936/1937. In German. 5.00

6263-6303 PB L 73751 History of the Rottal horse. 1938. In German. 4.50

PB L 73751-S. ERLANGEN, GERMANY, UNIVERSITY. Doctors' theses in the fields of veterinary medicine and animal culture. (FIAT Microfilm Reel D 186, Frames 5326-6303, abstract cards). 1936-1939. 34 p. Price: Microfilm-$1.00 Photostat-$3.00.
These are cards bearing abstracts of the items on reel D 186 (PB 73751) listed above. They have been prepared by FIAT abstracters in Germany.

PB L 74107. ERLANGEN, GERMANY, UNIVERSITY. Doctors' theses presented to the faculty of Mathematics and Natural Sciences. (FIAT Microfilm Reel C255, Frames 6641-7646, 8544-8552, and 4808-4862). 1936-1942. 1070 f. Price: Microfilm - $6.00 - Enlargement print - $107.00
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
6641-6656 PB L 74107	Studies on the problem of roughness by Willi Jacobs. In German.	$2.00
6657-6667 PB L 74107	Calculation of lift and flow conditions after surpassing the maximum lift by Peter Jordan. In German.	1.50
6668-6672 PB L 74107	System chromium-phosphorus and triole mixture iron-chromium-phosphorus by Götz-Werner Kasten. In German.	1.50
6673-6677 PB L 74107	Ternary diagram of the mixture iron-iron silicide tungsten by Hermann Töpker. In German.	1.50
6678-6690 PB L 74107	Balance of temperature and temperature measurements in flames by Hans-Georg Wolfhard. In German.	1.50
6691-6715 PB L 74107	Investigations on the resistance to low temperature of winter barley by Michail A. Christoff. In German.	2.50

Miscellaneous (contd)

6716-6730 PB L 74107 — Calculation of maximal orders in simple algebras with rational center by Anatol Lauenhauer. In German. 2.00

6731-6757 PB L 74107 — Contribution to the hydrological development of the Saale/Salzke region from the Elster/Saale interglacial area to the Saale/Weichsel-interglacial region surrounding Halle (Saale) by Wolfgang Diezemann. In German. 3.00

6758-6788 PB L 74107 — Contribution to the cultivation of wheat resistant to the stinking smut disease by Hans Hermann Fittschen. In German. 3.50

6789-6812 PB L 74107 — Development of condition indicators for apple cultivation by Gerhard Friedrich. In German. 2.50

6813-6862 PB L 74107 — Method of percolation, diacolation and evacolation by Hans Rudolf Fromm. In German. 5.00

6863-6930 PB L 74107 — Relations between salt extraction and lignite formation in the Eastern "Geisel" valley considering these processes for the remaining "Geisel" valley by Fritz Frommeyer. In German. 7.00

6931-6952 PB L 74107 — Contribution to the clarification of some problems of the synthesis consisting of more than one ring Hans Georg Gellert. In German. 2.50

6953-6976 PB L 74107 — Kinetics of the dissociation of dithionic acid by Margot Goehring. In German. 2.50

6977-7015 PB L 74107 — Investigations of mechanical operations, manual and power requirements for harvesting beets by means of the "Pommeritzer" method by Kurt Hanckes. In German. 4.00

7016-7035 PB L 74107 — ZnO-Na_2O-H_2O system by Gottfried Hendrich. In German. 2.00

7036-7053 PB L 74107 — Ring closure experiments with ethers of polyvalent phenols, particularly such of the pyrocatechols by Kurt Hennesthal. In German. 2.00

7054-7087A PB L 74107 — Contribution to some sixfold substituted ethanes and to the kinetics of their reactions by Paul Herte. In German. 3.50

7088-7124 PB L 74107 — Investigations on the temperature after effect of Nicotiana tabacum and Nicotiana rustica by Günter Klöos. In German. 4.00

7125-7151 PB L 74107 — Velocity of decomposition of some sixfold substituted ethanes by Kurt Knoevenagel. In German. 3.00

7152-7209 PB L 74107 — Density of population and nationality of the south western "Böhmisches Mittelgebirge" by Elizabeth Krausse. In German. 6.00

7210-7239 PB L 74107 — Sclerotium Rolfsii Saccardo of the sugar beet by Heinrich Kruger. In German. 3.00

7240-7294 PB L 74107 — Development and variability of the skull of the pure bred German swine and improved breed swine, by Werner Lambertin. In German. 5.50

7295-7315 PB L 74107 — Contributions to sodium silicates by Kurt Leidenroth. In German. 2.50

7316-7331 PB L 74107 — Preparation of Hexadecene-(8)-1,16-dicarboxylic acid by Herbert Meister. In German. 2.00

7332-7399 PB L 74107 — Water refuse formations in the "Oberen Kreide" of the Northern "Harzvorland" by Hans Martin. In German. 7.00

7400-7430 PB L 74107 — Investigating the resistance to low temperatures of plum species by Gerhard Müller. In German. 3.50

7431-7441 PB L 74107 — High frequency alternating voltage measurements with the "Hoffmann" Duantenelectrometer by Wilhelm Otto. In German. 1.50

7442-7465 PB L 74107 — Viscosity and structure of a liquid mixture consisting of two substances by Heinrich Mässler. In German. 2.50

7466-7528 PB L 74107 — Co-operative cattle producers in Germany and their organization within the "Hauptviehverwertung für Mitteldeutschland e. G. m. b. H." by Herbert Roters. In German. 6.50

7529-7556 PB L 74107 — Processing of long-chain polymethylene dihalides by Heinrich Weber. In German. 3.00

7557-7646 PB L 74107 — Economic geography of Estonia by Erwin Wegner. In German. 9.00

7647-8543 PB L 74107 — These frames are missing.

8544-8552 PB L 74107 — The follicular hormones in the ovaries of whales by Walter Doht. In German. 1.50

4808-4862 PB L 74107 — Studies on the sleep of mammals by Michael Rauscher. In German. 5.50

PB L 74356. FRANKFURT/MAIN, GERMANY. UNIVERSITY. A collection of doctors' theses. (FIAT Microfilm reel G 297, Frames 1034-1898) 1939-1943. 865 f. Price: Microfilm-$6.00 - Enlargement print-$86.50

The document reproduced on this FIAT microfilm reel cover the following fields: Chemistry, physics, meteorology, sanitation, etc. Individual items are listed below and will be available as enlargement prints only. Please include PB and frame numbers when ordering particular items from this reel. In German.

Frames	Titles	Price
1034-1052 PB L 74356	Non-enzymatic decarboxylizing of pyroracemic acid and formation of acetain. The side chain of β-sitosterol. By H. Mahn. 1941. In German.	$2.00
1053-1067 PB L 74356	The system CaO-Al_2O_3-$CaSO_4$-H_2O. By W. Saffran. 1941. In German.	1.50
1068-1075 PB L 74356	Studies on the ultraviolet photopolymerization of vinylhalides in the gaseous phase. By H. Wolbank. n.d. In German.	1.50
1076-1089 PB L 74356	The course of reaction in the hydration of calcium aluminates. By Y. Chia-Chih. n. d. In German.	1.50
1090-1108A PB L 74356	Thiols of higher molecular weight and their derivatives. By T. Lennartz. 1941. In German.	2.00

1109-1132 PB L 74356 — Thio cholesterol. By T. Wagner-Jauregg and T. Lennartz. 1941. In German. 2.50

1133-1142 PB L 74356 — The behavior of hydroxylapatite in solutions. By R. Weber. 1941. In German. 1941

1143-1152 PB L 74356 — The determination of the humidity of the air by means of the freezing method. By H. Reifferscheid. 1941. In German. 1.50

1153-1171 PB L 74356 — Calcium oxide and its hydrate. By W. Wischert. 1941. In German. 2.00

1172-1186 PB L 74356 — Hydrothermal reactions. Formation of calcium hydrosilicates from calcium oxide and silicagel at 300° and 350° C and high pressures. By F. Franke. 1941. In German. 1.50

1187-1202 PB L 74356 — I. Acetylation of 4-,2- and 3- bromotoluene according to Friedel-Crafts. II. Syntheses with 5-nitro-2-bromoacetophenone. By A. Herbert. 1941. In German. 2.00

1203-1237 PB L 74356 — Arnidenediol. By K. J. Schreiber. 1941. In German. 3.50

1238-1285 PB L 74356 — The seeds of Strophantus and of Strychnos (The history of the two drugs and their effective components as remedies). By H. Rendelsmann. 1942. In German. 5.00

1286-1395 PB L 74356 — The behavior of current transformers with magnetic cores at exceptionally high frequencies. By B. Fleischer. 1941. In German. 1.50

1396-1443 PB L 74356 — "Solasodin". By H. Stätzel. 1942. In German. 5.00

1444-1471 PB L 74356 — Theoretical considerations on the diffuse radiation from the sky. By K. Waldhelm. 1942. In German. 3.00

1472-1483 PB L 74356 — Comparative studies by means of the Konimeter and Owens' dust counter. By K. Kup. 1942. In German. 1.50

1484-1512 PB L 74356 — The cyclonic weather situation and the factors controlling cyclogenesis during the time from Nov 13 - Dec 9, 1935. By H. Bresowsky. n. d. In German. 3.00

1513-1530 PB L 74356 — Studies on the abnormal mobility of the H-ion. By H. Hartmann. 1942. In German. 2.00

1531-1538 PB L 74356 — The process of temperature increase in the lower air layers on clear forenoons. By A. Haas. 1942. In German. 1.50

1539-1580 PB L 74356 — The vertical change of wind in its dependence on the wind. By M. Klepp. 1942. In German. 4.50

1581-1628 PB L 74356 — A proposal to improve the quantitative determination of bacterium coli in drinking and service waters. By H. Loch. 1943. In German. 5.00

1629-1673 PB L 74356 — Some compounds of the benzocaine and antipyrene series. By A. Achenbach. 1943. In German. 4.50

1674-1812 PB L 74356 — Syntheses of quinoline by means of o-amino azomethines. By W. Reid. 1942. In German. 14.00

1813-1842 PB L 74356 — Statistics of atmospheric directional control. By O. Stuttmann. 1939. In German. 3.00

1843-1898 PB L 74356 — Nuclear acidylations according to Friedel-Crafts. By P. Weinheimer. 1943. In German. 6.00

PB L 73450. KARLSRUHE, GERMANY, ENGINEERING COLLEGE. A collection of doctors' theses and research papers. (FIAT Microfilm Reel M 80, Frames 198-880) 1939-1944. 617 f. Price: Microfilm-$6.00 - Enlargement print-$62.00

The documents reproduced on this FIAT microfilm reel cover the following fields: chemistry, physics, mathematics, hydraulic engineering, etc. Individual items are listed below and will be available as enlargement prints only. Please include PB and frame numbers when ordering items from this reel. In German.

Frames	Title	Price
198-265 PB L 73450	Catalytic demethylation of di- and trimethyl benzene hydrocarbons. By W. Haurin. n.d. In German.	$7.00
266 PB L 73450	The titles of five mathematical papers by F. Reutter are listed which follow below. In German.	1.50
267-287 PB L 73450	Whole rational functions of a dual-complex variable. By F. Reutter, 1943. In German.	2.50
288-301 PB L 73450	An approximate quasi-linear potential equation of the compressible flow and its solution by means of the Legendre transformation. By F. Reutter, 1943. In German.	1.50
302-336 PB L 73450	The periodically stressed semi-plane and the parallel strip with a variable elasticity modulus in the transversal direction. By F. Reutter, 1944. In German.	3.50
337-394 PB L 73450	The stability of three layer bars and plates whose middle layer consists of a light material and has a variable elasticity modulus in the transversal direction. Part 1 on frames 337-370, part 2 on frames 371-394. By F. Reutter, 1944. In German.	6.00
395-401 PB L 73450	Heat transmission through graphite and porcelain pipes in evaporating apparatus. By E. Kirschbaum, 1944. In German.	1.50
402-434 PB L 73450	The compressed gas insulated cable. By B. Günger. In German.	3.50
435-500 PB L 73450	These frame numbers are missing.	
501-592 PB L 73450	Base outlets for weirs. By W. Six, 1939. In German.	9.50
593-689 PB L 73450	New girder design in reinforced concrete construction. In German. By H. Berger, 1939.	10.00
690-762 PB L 73450	Influence of a change in width of a river profile on the transportation of eroded material. By W. Bitterich, 1939. In German.	7.50
763-880 PB L 73450	Distribution of load on a girder grate. By F. Geiger, 1940. In German.	12.00

PB L 73450-S. KARLSRUHE, GERMANY, ENGINEERING COLLEGE. A collection of doctors' theses and research papers. (FIAT Microfilm Reel M 80, Frames 198-880, abstract cards). 1939-1944. 21 p. Price: Microfilm-$1.00 - Photostat-$2.00

These are short abstracts of the items on reel M 80 (PB 73450), described above. They were prepared by FIAT abstracters in German.

Miscellaneous (contd)

*PB L 80402. VISWANATH, C. V. German carbon papers, typewriter ribbons, stencil papers and fountain pen industries. (BIOS Final Rept 1276, Item 22, 35). Nov-Dec 1946. 16 p. Price: Microfilm-$1.00 - Photostat-$2.00
This report gives a general description of the various industries with a brief report on each of the eighteen factories visited.

PB L 67566. WRIGHT, S. J. National Institute of Agricultural Engineering. Report for the year ending August 31st, 1946. (British Commonwealth Scientific Office Rept 120-BI-46). Sep 1946. 14 p. Price: Microfilm-$1.00 - Photostat-$1.00
This report is concerned mainly with the development work of the N.I.A.E. and makes little references to the extension commercial testing activities. The three types of tests available to manufacturers are: 1) Commercial tests of machines that are in or ready for production; 2) confidential tests of experimental models; and 3) expression of opinion on machines in circumstances in which a proper test cannot be carried out.

PATENTS

TEXTILES AND TEXTILE PRODUCTS

PB L 70284. REICHSPATENTAMT, BERLIN. German patents. Class 76: Spinning. (FIAT Microfilm Reel AA 112, Frames 7843-8721) 1877-1940. 878 f. Price: Microfilm-$6.00 - Enlargement print-$88.00
This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB, patent and frame numbers when ordering individual items. In German.

Frames	Title	Price
7843-7845 PB L 70284	REHM, LOTHAR, PLAUE, KR. FLÖHA, SACHS., UND SÄCHSISCHE TEXTIL-MASCHINENFABRIK VORM. RICH, HARTMANN A.G., CHEMNITZ. Combined stretching device for flyer frames. Class 76c, group 12. Ger. patent 725 999 dated Oct 6, 1940. Inventors: Lothar and others. In German.	$1.50
7846-7848 PB L 70284	TOENNIESSEN, ERNST (Inventor). Slide bar for leather tape devices. Class 76c, group 12. Ger. patent 712 576 dated Dec 31, 1938. In German.	1.50
7849-7852 PB L 70284	SMITH, WILLIAM PRINCE and WATERHOUSE, DAVID (Inventors). Charging device for the feed rollers of drawing frames in spinning-, twisting- and similar textile machines. Class 76c, group 12. Ger. patent 489 912 dated Feb 9, 1928. In German.	1.50
7853-7855 PB L 70284	DEUTSCHE SPINNEREIMASCHINENBAU AKT.-GES., INGOLSTADT. Leather tape stretching device. Class 76c, group 12. Ger. patent 662 625 dated Mar 12, 1937. In German.	1.50
7856 PB L 70284	HOFFMANN, FRITZ (Inventor). Coating for spinning top rollers. Class 76c, group 12. Ger. patent 655 555 dated Aug 13, 1935. In German.	1.50
7857-7859 PB L 70284	BAUMWOLLSPINNEREI GRONAU, GRONAU, WESTF. Drawing frame with three rollers. Class 76c, group 12. Ger. patent 500 051 dated Dec 6, 1928. In German.	1.50
7860-7862 PB L 70284	GMINDER, EMIL (Inventor). Drawing process and passage drawing frame for obtaining high stretch. Class 76c, group 12. Ger. patent 489 911 dated Jan 2, 1930. In German.	1.50
7863-7865 PB L 70284	DEUTSCHE SPINNEREIMASCHINENBAU AKT.-GES., INGOLSTADT. Five-cylinder stretching device with mechanical conveyor for medium long textiles. Class 76c, group 12. Ger. patent 664 830 dated Sep 17, 1933. In German.	1.50
7866-7869 PB L 70284	VEREINIGTE KUGELLAGERFABRIKEN AKT.-GES., SCHWEINFURT. Guide for pressure rollers of drawing frames arranged in pairs. Class 76c, group 12. Ger. patent 704 055 dated Jan 5, 1939. Inventor: Stahlecker. In German.	1.50
7870-7873 PB L 70284	VEREINIGTE KUGELLAGERFABRIKEN AKT.-GES., SCHWEINFURT. Bottom roller with roll bearing, especially for spinning machines. Class 76c, group 12. Ger. patent 725 855 dated Aug 22, 1940. Inventor: Raible. In German.	1.50
7874-7876 PB L 70284	SMITH, PRINCE, & SON, BURLINGTON SHED. Drawing frame for spinning frames. Class 76c, group 12. Ger. patent 145 715 dated Oct 22, 1902. In German.	1.50
7877-7879 PB L 70284	TRUMBACH, JOHANNES VON (Inventor). Passage roll for passage drawing frames of spinning frames. Class 76c, group 12. Ger. patent 491 941 dated Feb 7, 1928. In German.	1.50
7880-7882 PB L 70284	CASABLANCAS, FERNANDO (Inventor). Drawing frame for spinning frames with pressure saddle for the two pairs of rollers at the back. Class 76c, group 12. Ger. patent 497 058 dated May 2, 1929. In German.	1.50
7883-7886 PB L 70284	MUSGRAVE, H. E. and BARNES, E. A. (Inventors). Band- or thread-guide with variable to and fro movement. Class 76c, group 12. Ger. patent 142 184 dated Dec 17, 1901. In German.	1.50
7887-7889 PB L 70284	GUION, L. J. and WRIGLEY, L. J. (Inventors). Drawing mechanism for spinning frames. Class 76c, group 12. Ger. patent 140 868 dated Jul 22, 1902. In German.	1.50
7890-7892 PB L 70284	KEYSER, JOHANN JACOB (Inventor). Device for driving the drawing frame or only the feed rollers of flyer, spinning and twisting frames. Class 76c, group 12. Ger. patent 492 395 dated Oct 19, 1928. In German.	1.50
7893-7896 PB L 70284	AEBERLI, ARNOLD (Inventor). Passage drawing frame for spinning frames and stretching. Class 76c, group 12. Ger. patent 500 050 dated Apr 3, 1928. In German.	1.50
7897-7899 PB L 70284	TOENNIESSEN, ERNST (Inventor). Slide for leather tape stretching	

devices. Class 76c, group 12. Ger. patent 718 830 dated Sep 17, 1937. In German. 1.50

7900-7902 PB L 70284 IMBS, JOSEPH (Inventor). Device for spinning machines for stopping the spindles independently of each other. Class 76c, group 14. Ger. patent 125 871 dated May 26, 1901. In German. 1.50

7903-7905 PB L 70284 RYO, JULES DESIRE and others (Inventors). Spinning machine with spindles which can be disengaged individually. Class 76c, group 14. Ger. patent 58 199 dated Oct 24, 1890. In German. 1.50

7906-7908 PB L 70284 SCHELLER, CARL (Inventor). Spindle brake for spinning machines. Class 76c, group 14. Ger. patent 125 824 dated Feb 17, 1901. In German. 1.50

7909-7911 PB L 70284 ASHWORTH, THOMAS and others (Inventors). Spindle brake for spinning machines. Class 76c, group 14. Ger. patent 105 763 dated Apr 3, 1893. In German. 1.50

7912-7914 PB L 70284 DE FERRANTI, SEBASTIAN ZIANI (Inventor). Braking arrangement for the spindles of spinning and doubling machines and twisting machines. Class 76c, group 14. Ger. patent 203 602, dated Aug 23, 1905. In German. 1.50

7915-7917 PB L 70284 FIRMA F. A. SAITLER, NEUKIRCHEN/PLEISSE. Double brake for spinning and twisting machines. Class 76c, group 14. Ger. patent 193 164 dated Sep 11, 1906. In German. 1.50

7918-7920 PB L 70284 RIEGER, JEAN JACQUES (Inventor). Device for stopping the spindles in spinning and twisting machines. Class 76c, group 14. Ger. patent 67 673 dated Aug 31, 1892. In German. 1.50

7921-7923 PB L 70284 BÖCKMANN, AUGUST and BÖCKMANN, OTTO (Inventors). Spindle for spinning and twisting machines. Class 76c, group 14. Ger. patent 176 498 dated Nov 18, 1905. In German. 1.50

7924-7926 PB L 70284 ASHWORTH, TH. and GAUNT, J. SH. (Inventors). Spindle brake for spinning and twisting machines. Class 76c, group 14. Ger. patent 151 755 dated Jul 24, 1903. In German. 1.50

7927-7929 PB L 70284 METALL-WARENFABRIK FRITZ SEIBEL, CHARLOTTENBURG. Braking device for spinning machine ring spindles. Class 76c, group 14. Ger. patent 358 487 dated Feb 11, 1921. In German. 1.50

7930-7932 PB L 70284 GAUNT, JOSEPH SHAW and DYSON, HARRY (Inventors). Machine for spinning and twisting the worsted yarn, silk, cotton and other fiber goods, the brake pressure on the spindle being produced by a flexible weight. Class 76c, group 14. Ger. patent 253 408 dated Mar 10, 1911. In German. 1.50

7933-7935 PB L 70284 HAIGES, CHRISTIAN (Inventor). Friction spindle with loose wharve. Class 76c, group 14. Ger. patent 234 121 dated Jan 29, 1909. In German. 1.50

7936-7938 PB L 70284 BELANGER, VICTOR (Inventor). Wharve spindle for spinning and twisting machines. Class 76c, group 14. Ger. patent 296 555 dated Aug 4, 1941. In German. 1.50

7939-7941 PB L 70284 FIRMA F. A. SATTLER, NEUKIRCHEN/PLEISSE. Double brake for spinning and twisting machines. Class 76c, group 14. Ger. patent 329 166 dated Feb 22, 1919. In German. 1.50

7942-7945 PB L 70284 CONSTANTINE, FREDERICK WILLIAM and KAY, THOMAS GEORGE (Inventors). Automatic braking arrangement for spindles of spinning machines. Class 76c, group 14. Ger. patent 348 886 dated Jun 29, 1920. In German. 1.50

7946-7948 PB L 70284 MYLCHREEST, THOMAS GEORGE and MOORHOUSE, SAMUEL (Inventors). Braking arrangement for spindles. Class 76c, group 14. Ger. patent 407 152 dated Jun 18, 1921. In German. 1.50

7949-7951 PB L 70284 FERRAND, FRED (Inventor). Device with brake balls for regulating the spindle speed on spinning and twisting machines. Class 76c, group 14. Ger. patent 404 394 dated Dec 15, 1922. In German. 1.50

7952-7953 PB L 70284 FIRMA F. J. GRÜN, GERWEILER/ELSASS-LOTHRINGEN. Device for stopping the spindles on spinning and twisting machines. Class 76c, group 14. Ger. patent 51 566 dated Oct 23, 1889. In German. 1.50

7954-7956 PB L 70284 DELAVIGNE, ALPHONSE (Inventor). Throttling frame. Class 76c, group 14. Ger. patent 42 965 dated Mar 17, 1887. In German. 1.50

7957-7959 PB L 70284 LEACH, WILLIAM (Inventor). Throttling frame with active flyers and inert spindles. Class 76c, group 14. Ger. patent 41 558 dated Oct 10, 1886. In German. 1.50

7960-7962 PB L 70284 THIERON SÖHNE, KETTENIS-EUPEN. Device for stopping the spindles on spinning and twisting machines. Class 76c, group 14. Ger. patent 57 222 dated Nov 5, 1890. In German. 1.50

7963-7965 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., BARMEN-RITTERSHAUSEN. Brake for spinning and twisting spindles. Class 76c, group 14. Ger. patent 498 101 dated Jun 18, 1929. In German. 1.50
Supplement to patent 481 242.

7966-7968 PB L 70284 BROWN SPIN WRIGHT COMPANY, NEW YORK. Knee-brake for spindles of spinning machines. Class 76c, group 14. Ger. patent 289 765 dated Apr 8, 1931. In German. 1.50

7969-7971 PB L 70284 F. A. SATTLER (Inventor). Knee brake for spindles of spinning and twisting machines. Class 76c, group 14. Ger. patent 313 872 dated Jan 12, 1918. In German. 1.50

7972-7975 PB L 70284 SCHMIDT, EDOUARD (Inventor). Device for preventing the joining of threads or for separating them on spinning and twisting machines. Class 76c, group 14. Ger. patent 165 304 dated May 7, 1905. In German. 1.50

7976-7978 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., BARMEN-RITTERSHAUSEN. Brake for spinning and twisting spindles. Class 76c, group 14. Ger. patent 494 074 dated Mar 20, 1929. In German. 1.50
Supplement to patent 481 242.

7979-7981 PB L 70284 HARGREAVES, JOSEPH (Inventor). Spindle for spinning and doubling machines. Class 76c, group 14. Ger. patent 73 317 dated Jul 29, 1893. In German. 1.50

7982-7985 PB L 70284 MILWARD, GEORGE HENRY (Inventor). Spindle brake for ring spinning and ring twisting frames. Class 76c, group 14. Ger. patent 127 045 dated Aug 10, 1900. In German. 1.50

7986-7988 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., WUPPERTAL-OBERBARMEN. Spindle brake for spinning and twisting spindles. Class 76c, group 14. Ger. patent 517 696 dated Dec 31, 1929. In German. 1.50

7989-7991 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Electrodynamic brake for the trailing parts of spinning and twisting machines. Class 76c, group 14. Ger. patent 534 775 dated Dec 20, 1929. In German. 1.50
Supplement to patent 504 901.

7992-7994 PB L 70284 NICKEL, MAX (Inventor). Electrodynamic brake for trailed parts of spinning andtwisting machines. Class 76c, group 14. Ger. patent 654 586 dated Jul 20, 1933. In German. 1.50

7995-7997 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., BARMEN-RITTERSHAUSEN. Brake for spinning and twisting machines. Class 76c, group 14. Ger. patent 481 242 dated Feb 26, 1928. In German. 1.50

7998-8000 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., BARMEN-RITTERSHAUSEN. Brake for spinning and twisting machines. Class 76c, group 14. Ger. patent 482 777 dated Nov 9, 1928. In German. 1.50
Supplement to patent 481 242.

8001-8003 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., BARMEN. Double brake for stopping spinning and twisting spindles. Class 76c, group 14. Ger. patent 461 616 dated May 18, 1927. In German. 1.50

8004-8005 PB L 70284 BEMBERG, J. P., AKT.-GES., BARMEN-RITTERSHAUSEN. Device for stopping spinning and twisting spindles. Class 76c, group 14. Ger. patent 451 334 dated Apr 11, 1926. In German. 1.50

8006-8008 PB L 70284 CONSTANTINE, FREDERICK WILLIAM and KAY, THOMAS GEORGE (Inventors). Liquid braking arrangement for spindles of spinning machines. Class 76c, group 14. Ger. patent 414 240 dated Oct 4, 1923. In German. 1.50

8009 PB L 70284 This frame is missing.

8010-8012 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Adjustable whirlpool brake, especially for bobbin type spindles on spinning and twisting machines. Class 76c, group 14. Ger. patent 504 901 dated Aug 24, 1929. Inventor: Haag. In German. 1.50

8013-8016 PB L 70284 MASCHINENFABRIK OERLIKON, OERLIKON, SCHWEIZ. Device for electrically driven ring spinning and twisting machines for regulating the spindle speed according to the structure and to the diameter of the cops. Class 76c, group 13. Ger. patent 234 670 dated Aug 30, 1907. In German. 1.50

8017-8020 PB L 70284 HAMMER & HAERLER, FORST, LAUSITZ. Process and device for the fitting of drive belts in machines, especially of spindle drive belts in spinning and twisting machines. Class 76c, group 13. Ger. patent 665 843 dated Aug 23, 1936. In German. 1.50

8021-8023 PB L 70284 DEUTSCHE SPINNEREIMASCHINENBAU A.G., INGOLSTADT. Group driving for spindles of bilateral spinning, twisting and similar machines. Class 76c, group 13. Ger. patent 719 527 dated Apr 10, 1940. Inventor: Grossmann. In German. 1.50

8024-8028 PB L 70284 SCHORCH-WERKE AKT.-GES., RHEIDT/RHLD. Automatic speed regulator for ring spinning-, ring twisting- and similar textile machines. Class 76c, group 13. Ger. patent 644 895 dated Jun 8, 1934. In German. 1.50

8029-8032 PB L 70284 HAMEL, CARL, A.G., SIEGMAR-SCHÖNAU. Spokeless driving pulley for driving engine with belt of spinning-, twisting- and similar textile machines. Class 76c, group 13. Ger. patent 740 400 dated Mar 8, 1938. Inventor: Edmund Hamel. In German. 1.50

8033-8035 PB L 70284 DEUTSCHE SPINNEREIMASCHINENBAU A.G., INGOLSTADT. Group drive for spindles of bilateral spinning, twisting, and similar machines. Class 76c, group 13. Ger. patent 719 527 dated Apr 10, 1940. Inventor: Grossmann. In German. 1.50

8036-8039 PB L 70284 ACTIENGESELLSCHAFT JOHANN JACOB RIETER & CIE., WINTERTHUR, SCHWEIZ. Spindle drive for spinning and twisting machines. Class 76c, group 13. Ger. patent 719 130 dated Feb 8, 1939. In German. 1.50

8040-8042 PB L 70284 PASTOR, CARL THEODOR (Inventor). Spindle for spinning and twisting machines. Class 76c, group 13. Ger. patent 697 847 dated Aug 14, 1936. In German. 1.50
Supplement to patent 687 726.

8043-8045 PB L 70284 S.A. OFFICINA MECCANICA ST. ANDREA-NOVARA, NOVARA, ITALY. Spindle drive for spinning-, twisting-,

spooling and similar textile machines. Class 76c, group 13. Ger. patent 715 792 dated Jul 3, 1936. In German. 1.50

8046-8048 PB L 70284 NOVIHRA G.M.B.H., STUTTGART-BAD CANNSTATT. Expanding roller, especially for the belt drive of spinning and twisting spindles. Class 76c, group 13. Ger. patent 697 991 dated Jul 22, 1937. In German. 1.50

8049-8052 PB L 70284 (Source missing). Ring spinning machine with drive reversible in the twist direction. Class 76c, group 13. Ger. patent 747 951 dated Feb 24, 1938. In German. 1.50

8053-8056 PB L 70284 KEYSER, JOHANN JACOB (Inventor). Bearing for the driving shaft of spindles, driven by worm wheels or similar arrangements, on spinning-, twisting and similar machines. Class 76c, group 13. Ger. patent 741 450 dated Jun 2, 1937. In German. 1.50

8057-8060 PB L 70284 SIEMENS-SCHUCKERTWERKE A.G., BERLIN-SIEMENSSTADT. Device for preventing incompetent interferences with the operational speed control of spinning and twisting machines with spinning regulators. Class 76c, group 13. Ger. patent 724 924, dated Aug 17, 1941. Inventor: Fleisser. In German. 1.50

8061-8064 PB L 70284 SIEMENS-SCHUCKERTWERKE A.G., BERLIN-SIEMENSSTADT. Synchronizing device for the spindles of spinning-, twisting-, and similar machines, individually driven by means of spindle driving motors. Class 76c, group 13. Ger. patent 742 560 dated Nov 14, 1941. In German. 1.50

8065-8067 PB L 70284 HAMEL, CARL, AKT.-GES., UND EDMUND HAMEL, SIEGMAR-SCHÖNAU. Bilateral spinning-, twisting-, spooling- or similar textile machine. Class 76c, group 13. Ger. patent 642 684 dated Feb 25, 1934. In German. 1.50

8068-8070 PB L 70284 AKTIENGESELLSCHAFT JOHANN JACOB RIETER & CIE., WINTERTHUR, SCHWEIZ. Expanding roller for driving the spindles for spinning and twisting machines. Class 76c, group 13. Ger. patent 642 541 dated Jul 4, 1934. In German. 1.50

8071-8073 PB L 70284 LANDOLT, MAI (Inventor). Electrically driven spinning and twisting device. Class 76c, group 13. Ger. patent 638 798 dated Nov 16, 1932. In German. 1.50

8074-8077 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ/S. Ring spinning or ring twisting machine with bobbin frame moved vertically up and down. Class 76c, group 13. Ger. patent 672 096 dated Sep 11, 1936. In German. 1.50

8078-8081 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Spinning regulator. Class 76c, group 13. Ger. patent 658 590 dated Apr 22, 1934. In German. 1.50
Supplement to patent 603 247.

8082-8084 PB L 70284 HAMEL, CARL, AKTIENGESELLSCHAFT, SIEGMAR-SCHÖNAU. Spindle driving engine with belt for bilateral spinning twisting and similar textile machines. Class 76c, group 13. Ger. patent 683 775, dated Sep 15, 1937. Inventor: Viertel. In German. 1.50

8085-8088 PB L 70284 AKTIENGESELLSCHAFT BROWN, BOVERI & CIE., BADEN, SCHWEIZ. Spinning regulator for electrically driven ring spinning and ring twisting machines. Class 76c, group 13. Ger. patent 691 957, dated Apr 11, 1935. In German. 1.50

8089-8091 PB L 70284 PASTOR, CARL THEODOR (Inventor). Spindle for spinning and twisting machines. Class 76c, group 13. Ger. patent 700 331 dated Jan 10, 1937. In German. 1.50

8092-8094 PB L 70284 FIRMA G. F. GROSSER, MARKERSDORF, CHEMNITZTAL. Reversible spindle driving for spinning and twisting machines. Class 76c, group 13. Ger. patent 701 492 dated Aug 14, 1938. Inventor: Freyer. In German. 1.50

8095-8098 PB L 70284 PREISSER, GÜNTHER (Inventor). Ring spinning or ring twisting machine with spindle which moves up and down, driven by a drum. Class 76c, group 13. Ger. patent 709 310 dated Feb 2, 1937. In German. 1.50

8099-8101 PB L 70284 HAMEL, CARL, AKT.-GES., SIEGMAR-SCHÖNAU. Spindle drive for spinning and twisting machines with several spindle groups. Class 76c, group 13. Ger. patent 712 547 dated Jun 17, 1936. In German. 1.50

8102-8104 PB L 70284 PASTOR, CARL THEODOR (Inventor). Spindle for spinning and twisting machines. Class 76c, Group 13. Ger. patent 687 726, dated Jul 29, 1936. In German. 1.50

8105-8107 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Spinning regulator. Class 76c, group 13. Ger. patent 688 674 dated Jul 29, 1937. Inventor: Albanus. In German. 1.50

8108-8111 PB L 70284 BROWN, BERI & CIE. AKT.-GES., MANNHEIM-KÄFERTAL. Automatic speed regulator for ring spinning and ring twisting frames. Class 76c, group 13. Ger. patent 689 027 dated Jul 25, 1937. Inventor: Baltz. In German. 1.50

8112-8114 PB L 70284 SIEMENS SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Spinning regulator. Class 76c, group 13. Ger. patent 713 010 dated Jul 10, 1937. Inventor: Fleisser. In German. 1.50

8115-8118 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Spinning regulator. Class 76c, group 13. Ger. patent 713 175 dated Feb 7, 1940. Inventor: Baltz. In German. 1.50

8119-8122 PB L 70284 STALTURBINE G.M.B.H., BERLIN. Spinning regulator for ring spinning frames. Class 76c, group 13. Ger. patent 715 178 dated Apr 20, 1940. In German. 1.50
Supplement to patent 629 357.

8123-8125 PB L 70284 HAMEL, CARL, AKT.-GES., SIEGMAR-SCHÖNAU. Multi-spindle drive with belt for bilateral spinning-, twisting and similar textile machines. Class 76c, group 13. Ger. patent 701 930 dated Mar 29, 1938. In German. 1.50

8126-8129 PB L 70284 BOBRZYK, WILHELM (Inventor). Spindle drive with belt for spinning, twisting and similar textile machines. Class 76c, group 13. Ger. patent 661 057 dated Dec 24, 1936. In German. 1.50

8130-8132 PB L 70284 FIRMA WILHELM GÖHLER, HARTHA/SACHSEN. Spindle drive for spinning and twisting frames. Class 76c, group 13. Ger. patent 675 928 dated Nov 5, 1935. In German. 1.50

8133-8134 PB L 70284 HONEGGER, HERMANN (Inventor). Automatically adjusting spindles. Class 76c, group 13. Ger. patent 407 360 dated Dec 12, 1923. In German. 1.50

8135-8138 PB L 70284 RÖBEL, OSKAR (Inventor). Device for moving up the thread-guide for bottle bobbin machines and the like. Class 76c, group 4. Ger. patent 628 423 dated Nov 7, 1933. In German. 1.50

8139-8143 PB L 70284 SCHLAFHORST, W., U. CO., M. GLADBACH. Method for separating the ending threads of cops tightly reeled at the ends of the spindles on cop winders without spindles. Class 76c, group 4. Ger. patent 643 738 dated Nov 29, 1934. In German. 1.50

8144-8148 PB L 70284 SCHLAFHORST, W., & CO., M. GLADBACH. Mechanism on cop-winding machines for tightly pressing and separating threads, guided behind the bobbin-foot after finishing the cops. Class 76d, group 4. Ger. patent 639 112 dated Nov 30, 1934. In German. 1.50

8149-8151 PB L 70284 BARMER MASCHINENFABRIK AKT.-GES., WUPPERTAL-OBERBARMEN. Braking and safety mechanism for swinging bobbin holders of cheese machines. Class 76d, group 2. Ger. patent 633 971 dated Dec 8, 1934. In German. 1.50

8152-8155 PB L 70284 MASCHINENFABRIK SCHWEITER A.-G., HORGEN B. ZÜRICH, SCHWEIZ. Cheese machine with adjustable drive in the form of a friction cam of the bobbin peg. Class 76d, group 2. Ger. patent 641 903 dated Jun 30, 1934. In Jersan. 1.50

8156-8158 PB L 70284 STENGLEIN, OSWALD (Inventor). Cheese machine. Class 76d, group 2. Ger. patent 398 624 dated Jul 17, 1923. In German. 1.50

8159-8162 PB L 70284 SCHÄRER-NUSSBAUMER U. CO., ERLENBACH B. ZÜRICH, SCHWEIZ. Cheese-machine with adjustable bobbin peg drive. Class 76d, group 2. Ger. patent 634 418 dated Aug 24, 1933. In German. 1.50

8163-8166 PB L 70284 MASCHINENFABRIK SCHWEITER A.-G., HORGEN B. ZÜRICH, SCHWEIZ. Cheese machine with grooved drum and auxiliary thread guiding device. Class 76d, group 2. Ger. patent 629 728 dated Nov 17, 1933. In German. 1.50

8167-8168 PB L 70284 COOPER, WILLIAM and CORDINGLEY, JOHN (Inventors). Implement for pasting on the lowest fiber stratum by mulecops. Class 76c, group 26. Ger. patent 42 038 dated Apr 20, 1887. In German. 1.50

8169-8172 PB L 70284 BECKMANN & CO., BRACKWEDE-QUELLE. Mechanism for exchanging the bobbin bench of flyer spinning-, flyer twisting-, and similar textile machines. Class 76c, group 26. Ger. patent 649 652 dated Jul 18, 1936. In German. 1.50

8173-8175 PB L 70284 JAGGER, ELI (Inventor). Apparatus for quick mounting of paper bobbins on spindles of the fine spinning machines. Class 76c, group 26. Ger. patent 40 410 dated Feb 13, 1887. In German. 1.50

8176-8180 PB L 70284 DENBY, EDWARD and others (Inventors). Device for removing bobbins and for regulating thread tension on fine spinning machines. Class 76c, group 26. Ger. patent 12 699 dated Jul 28, 1880. In German. 1.50

8181-8183 PB L 70284 KOERTJE, WERNER (Inventor). Mechanism for exchanging the bobbin bench of flyer spinning-, flyer twisting-, and similar textile machines. Class 76c, group 26. Ger. patent 635 373 dated Sep 14, 1935. In German. 1.50

8184-8186 PB L 70284 BOYD, THOMAS ALEXANDER UND J. & T. BOYD, LTD., SHETTLESTON B. GLASGOW. Greasing mechanism for the neck bearing of spinning frames which has an oil container in the spindle. Class 76c, group 25. Ger. patent 160 164 dated Nov 10, 1903. In German. 1.50

8187-8189 PB L 70284 MEYNELL, HENRY (Inventor). Spindle bearing for ring spinning frames and the like. Class 76c, group 25. Ger. patent 158 917 dated Apr 22, 1904. In German. 1.50

8190-8192 PB L 70284 GUILLEMAUD, ARTHUR (Inventor). Circulatory lubrication mechanism for the spindles of spinning frames. Class 76c, Group 25. Ger. patent 168 330 dated Feb 22, 1905. In German. 1.50

8193-8195 PB L 70284 KLUSSMANN, B. (Inventor). Step bearing for spinning spindles. Class 76c, group 25. Ger. patent 166 715 dated Mar 12, 1905. In German. 1.50

8196-8198 PB L 70284 SELLA, CARLO and PROVA, GEOMETRO UMBERTO, & CO., VERCELLI. Spindle bearing, especially for textile machines. Class 76c, group 25. Ger. patent 164 483 dated Dec 2, 1903. In German. 1.50

8199-8201 PB L 70284 SCHIMMEL, OSCAR, & CO. AKT.-GES., CHEMNITZ. Mechanism for filling oil containers used for lubricating the spindles in the flat band of self-acting mules. Class 76c, group 25. Ger. patent 161 569 dated Jun 18, 1904. In German. 1.50

8202-8204 PB L 70284 AN HAACK, MAX and KNOBLAUCH, ALBERT (Inventors). Circulatory lubrication mechanism for

the neck bearing of spindles. Class 76c, group 25. Ger. patent 166 885 dated Feb 8, 1905. In German. 1.50

8205-8207 PB L 70284 BAEUERLE, WILHELM (Inventor). Mechanism for oiling the spindles of spinning-, twisting-, and spooling machines and the like. Class 76c, group 25. Ger. patent 167 186 dated Aug 20, 1904. In German. 1.50

8208-8210 PB L 70284 SCHIMMEL, OSCAR, & CO. AKT.-GES., CHEMNITZ. Device for automatic mules with several speeds of spindles for transferring the driving belt of the spindle from the disc of the small or middle speed to the large. Class 76c, group 20. Ger. patent 159 018 dated Sep 4, 1904. In German. 1.50

8211-8214 PB L 70284 SOCIÉTÉ ALSACIENNE DE CONSTRUCTIONS MECANIQUES, MÜLHAUSEN, FRANKR. Driving device for automatic mules. Class 76c, group 20. Ger. patent 388 519 dated Aug 11, 1922. In German. 1.50

8215-8217 PB L 70284 SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS, BELGIEN. Buffer for stopping the motion of the carriage of automatic mules. Class 76c, group 20. Ger. patent 169 619 dated Sep 27, 1905. In German. 1.50

8218-8220 PB L 70284 TAENZLER, EMIL (Inventor). Entry device of carriage for automatic mules. Class 76c, group 20. Ger. patent 36 363 dated Feb 14, 1886. In German. 1.50

8221-8223 PB L 70284 SCHIMMEL, OSCAR, & CO., CHEMNITZ. Device for automatic machines for quickly winding up the counter-reel in cutting off the threads. Class 76c, group 20. Ger. patent 94 253 dated Apr 3, 1897. In German. 1.50

8224-8226 PB L 70284 SÄCHSISCHE MASCHINENFABRIK VORM. RICH. HARTMANN, AKTIENGESELLSCHAFT, CHEMNITZ. Device for operating the condensed sliver cylinder of automatic mules while the carriage starts with several even speeds. Class 76c, group 20. Ger. patent 180 560 dated Feb 14, 1905. In German. 1.50

8227-8228 PB L 70284 HILDEN, WILHELM (Inventor). Device for spinning condensed sliver in automatic mules (mule jennies, automatic machines). Class 76c, group 20. Ger. patent 227 425 dated Jun 25, 1909. In German. 1.50
Supplement to patent 221 102 of Feb 20, 1909.

8229-8232 PB L 70284 SAECHSISCHE MASCHINENFABRIK, CHEMNITZ. Counter-reel for automatic machines. Class 76c, group 20. Ger. patent 92 270 dated Sep 22, 1896. In German. 1.50

8233-8235 PB L 70284 STERBECQ, PAUL VICTOR (Inventor). Clutch-device for getting the spindle- and backing-off -motion for automatic mules. Class 76c, group 20. Ger. patent 83 992 dated Apr 26, 1895. In German. 1.50

8236-8238 PB L 70284 SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS. Braking device for counter winder of automatic mules for reduction of its percussion against the fibers during the backing-off process. Class 76c, group 20. Ger. patent 168 265 dated Sep 30, 1904. In German. 1.50
Supplement to patent 150 898 of Oct 14, 1903.

8239-8242 PB L 70284 BERNDT, KARL (Inventor). Mule-spinning machine with two motor propulsion. Class 76c, group 20. Ger. patent 703 876 dated Mar 5, 1938. In German. 1.50

8243-8246 PB L 70284 KOECHLIN, ALBERT and SCHOEN, WILHELM (Inventors). Automatic mule drawing rollers giving off condensed sliver at the entering of the carriage. Class 76c, group 20. Ger. patent 103 548 dated Sep 3, 1897. In German. 1.50

8247-8249 PB L 70284 HEIPT, ALBERT EMIL (Inventor). Automatic mule which carriage or quadrant is driven by rope. Class 76c, group 20. Ger. patent 127 047 dated Apr 24, 1901. In German. 1.50

8250-8252 PB L 70284 ENGEL, IGNACY (Inventor). Device for automatically stopping carriage on automatic machines. Class 76c, group 20. Ger. patent 122 237 dated Sep 18, 1900. In German. 1.50

8253-8266 PB L 70284 BODEMER, JOHANN GEORG (Inventor). Brake gearing for cutting threads on automatic mules. Class 76c, group 20. Ger. patent 203 603 dated Aug 25, 1907. In German. 1.50

8267-8269 PB L 70284 KAMMGARNSPINNEREI GAUTZSCH B. LEIPZIG AKT.-GES., GAUTZSCH B. LEIPZIG. Device for producing any amount of finished twist on automatic mules. Class 76c, group 20. Ger. patent 455 000 dated Jan 18, 1925. In German. 1.50

8270-8272a PB L 70284 HANHART, LUCIEN (Inventor). Device for automatic machines for driving the reel in winding up threads. Class 76c, group 20. Ger. patent 123 070 dated Jun 14, 1900. In German. 1.50

8273-8276 PB L 70284 SOCIÉTÉ VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS. Braking device for the counter winder of automatic mules for weakening its blow towards the threads when knocking over. Class 76c, group 20. Ger. patent 150 898 dated Oct 14, 1903. In German. 1.50

8277-8279 PB L 70284 ELSÄSSISCHE MASCHINENBAU -GESELLSCHAFT, MÜLHAUSEN I.E. Device for automatic mules to prevent the forming of loops in the threads at the end of the carriage entrance. Class 76c, Group 20. Ger. patent 108 071, dated Feb 16, 1899. In German. 1.50

8280-8283 PB L 70284 CHARLIN, ERNEST (Inventor). Regulation device for the steering of the turn off device of automatic mules. Class 76c, group 20. Ger. patent 96 529 dated Jun 5, 1897. In German. 1.50

8284-8286 PB L 70284 JACKSON, WILHELM and BARTHOLEMY, JOSEPH (Inventors). Stopping device for automatic mules. Class 76c, group 20. Ger. patent 113 473 dated Jun 3, 1899. In German. 1.50

8287-8289 PB L 70284 FIRMA G. JOSEPHY'S ERBEN, BIELITZ, OSTERR. SCHLES. Device for automatic mule (carded yarn) to drive the roving roller with several speeds from the main shaft and the carriage. Class 76c, group 20. Ger. patent 248 768 dated Aug 23, 1911. In German. 1.50

8290-8293 PB L 70284 SCHWALBE, C. E. (Inventor). Roving cylinder-drive for automatic mules for woolen yarns. Class 76c, group 20. Ger. patent 114 936 dated Apr 3, 1900. In German. 1.50

8294-8296A PB L 70284 CLEGG, ROBERT and CLEGG, JAMES (Inventors). Device for automatic machines for driving the carriage and the stretching rolls independently from the spindles. Class 76c, group 20. Ger. patent 129 109 dated Feb 5, 1901. In German. 1.50

8297-8299 PB L 70284 HANHART, EMILE (Inventor). Mule-fine spinning machine with a counter winder tightened by springs. Class 76c, group 20. Ger. patent 76 036 dated Jun 1, 1893. In German. 1.50
Second supplement to patent 53 651 of Feb 11, 1890.

8300-8301 PB L 70284 HANHART, EMILE (Inventor). Mule-fine spinning machine with a counter winder tightened by springs. Class 76c, group 20. Ger. patent 53 651 dated Feb 11, 1890. In German. 1.50

8302-8304 PB L 70284 HEAP, ROBERT SMITH and GREY, GEORGE (Inventors). Spindle drive for automatic mules (automatic machines). Class 76c, group 20. Ger. patent 167 521 dated Dec 28, 1904. In German. 1.50

8305-8307 PB L 70284 HANHART, EMILE (Inventor). Mule-fine spinning machine with a counter winder tightened by springs. Class 76c, group 20. Ger. patent 68 169 dated Nov 1, 1892. In German. 1.50
Supplement to patent 53 651 of Feb 11, 1890.

8308-8311 PB L 70284 SCHIMMEL, OSCAR (Inventor). Automatic mule for woolen yarns with a graduated worm which gives a variable speed to the carriage. Class 76c, group 20. Ger. patent 47 766 dated Aug 7, 1888. In German. 1.50

8312-8317 PB L 70284 HEIPT, ALBERT EMIL (Inventor). Counter winder load for automatic mules (automatic machines). Class 76c, group 20. Ger. patent 176 874 dated Aug 9, 1905. In German. 1.50

8318-8320 PB L 70284 SOHN, JAKOB GRIMM (Inventor). Turn off device for automatic mules. Class 76c, group 20. Ger. patent 136 759 dated Jan 18, 1902. In German. 1.50

8321-8323 PB L 70284 SCHIMMEL, OSCAR, & CO., AKTIENGESELLSCHAFT, CHEMNITZ. Condensed sliver drive for automatic mules (automatic machines). Class 76c, group 20. Ger. patent 176 586 dated Feb 27, 1906. In German. 1.50

8324-8327 PB L 70284 THURLOW, JOHN (Inventor). Device on the automatic mule for retwisting the spindle in time during the turn off. Class 76c, group 20. Ger. patent 10 601 dated Dec 21, 1879. In German. 1.50

8328-8330 PB L 70284 HANHART, EMIL (Inventor). Mule-fine spinning machine with counter winder tightened by springs. Class 76c, group 20. Ger. patent 79 931 dated Jun 1, 1893. In German. 1.50
Third supplement to patent 53 651 of Feb 11, 1890.

8331-8333 PB L 70284 HANHART, EMIL (Inventor). Mule-fine spinning machine with counter winder tightened by springs. Class 76c, group 20. Ger. patent 76 218 dated Aug 29, 1893. In German. 1.50
Supplement to patent 68 169.

8334-8336 PB L 70284 GUILLEMAUD, ARTHUR (Inventor). Automatic mule (mule spinning machine) for spinning flax, hemp, jute tow and similar long fibered spinnings. Class 76c, group 20. Ger. patent 186 297 dated May 16, 1906. In German. 1.50

8337-8340 PB L 70284 ATELIERS HOUGET SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS, BELG. Driving device for the backing-off shaft, in the interior of the carriage, which operates the backing off of the thread, the carriage entrance and the cam shaft. Class 76c, group 20. Ger. patent 479 142 dated May 12, 1927. In German. 1.50

8341-8343 PB L 70284 CHARIE, ERNEST (Inventor). Device for gathering waste materials from automatic mules. Class 76c, group 20. Ger. patent 173 224 dated Jul 8, 1905. In German. 1.50

8344-8346 PB L 70284 LANGE, OTTO (Inventor). Automatic mules (automatic machines) for simultaneously spinning of several condensed slivers. Class 76c, group 20. Ger. patent 186 108 dated May 12, 1906. In German. 1.50

8347-8349 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Mule-spinning machine with hydraulic carriage operation. Class 76c, group 20. Ger. patent 690 763 dated Feb 6, 1938. Inventor: Schubert. In German. 1.50

8350-8352 PB L 70284 DINTER, OTTO (Inventor). Device for automatic mules (automatic machines) with retardation of carriage. Class 76c, group 20. Ger. patent 195 867 dated Jan 6, 1906. In German. 1.50

8353-8355 PB L 70284 SCHMITT, JOSEPH (Inventor). Device for automatic mules to brake the counter winder. Class 76c, group

20. Ger. patent 201 359 dated Aug 24, 1907. In German. 1.50

8356-8358 PB L 70284 SCHIMMEL, OSCAR, & CO. ACT.-GES., CHEMNITZ. Device for automatic mules for loading of the counter winder by means of compressed air. Class 76c, group 20. Ger. patent 198 423 dated Sep 8, 1907. In German. 1.50

8359-8361 PB L 70284 SOCIÉTÉ ANONYME VERVIÉTOIS POUR LA CONSTRUCTION DE MACHINES, VERVIERS. Braking device for counter winder of automatic mules for reducing its percussion against the fibers during the backing-off process. Class 76c, group 20. Ger. patent 169 919 dated Sep 30, 1904. In German. 1.50
Supplement to patent 150 898 of Oct 14, 1903.

8362-8364 PB L 70284 PICKFORT, JAMES and others. Device for automatic mules for driving the spindle drum shaft at the backing-off. Class 76c, group 20. Ger. patent 106 394 dated Sep 5, 1897. In German. 1.50

8365-8367 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Automatic mule. Class 76c, group 20. Ger. patent 468 123 dated Sep 30, 1927. Inventors: Mühlens and others. In German. 1.50

8368-8375 PB L 70284 VOIGTLAENDER-TETZNER, HERBERT (Inventor). Drive for spinning machines, especially automatic mules. Class 76c, group 20. Ger. patent 247 089 dated Sep 14, 1910. In German. 1.50

8376-8378 PB L 70284 VOIGTLAENDER-TETZNER, HERBERT (Inventor). Spinning machine with stretcher to be moved up and down. Class 76c, group 20. Ger. patent 250 344 dated May 21, 1911. In German. 1.50

8379-8381 PB L 70284 SCHIMMEL, OSCAR, & CO. AKT.-GES., CHEMNITZ I. S. Drive of spindles for automatic mules with three different speeds of spindle. Class 76c, group 20. Ger. patent 250 552 dated Dec 9, 1911. In German. 1.50

8382-8384 PB L 70284 LEPPERHOFF, OSCAR (Inventor). Drive for automatic mules. Class 76c, group 20. Ger. patent 344 590 dated Nov 12, 1919. In German. 1.50

8385-8387 PB L 70284 SIEMENS-SCHUCKERTWERKE G.M.B.H., SIEMENSSTADT B. BERLIN. Electric single drive for automatic mules. Class 76c, group 20. Ger. patent 363 049 dated Jun 19, 1921. Inventor: Stiel. In German. 1.50

8388-8390 PB L 70284 LÜNSKENS, FRANZ JOSEPH (Inventor). Device on automatic mules for changing the rotation of the roving cylinder. Class 76c, group 20. Ger. patent 375 929 dated Oct 6, 1921. In German. 1.50

8391-8394 PB L 70284 SOCIÉTÉ ALSACIENNE DE CONSTRUCTIONS MECANIQUES, MÜLHAUSEN, FRANKR. Process and device for driving the drawing rolls of automatic mules. Class 76c, group 20. Ger. patent 391 342 dated Jul 9, 1922. In German. 1.50

8395-8397 PB L 70284 GEBRÜDER ZIMMERMANN, BROCKAU B. NETZSCHKAU I. V. Jenny mules with differential gear for drum drive and electric single gear fixed on the headstock. Class 76c, group 20. Ger. patent 538 819 dated Feb 6, 1927. In German. 1.50

8398-8402 PB L 70284 SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS, BELGIEN. Device for driving and regulating wire for automatic mules with fixed spindle frame, movable feeding device, and with three spindle speeds. Class 76c, group 20. Ger. patent 273 913 dated Apr 16, 1913. In German. 1.50

8403-8405 PB L 70284 SÄCHSISCHE MASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Device for automatic mules for changing the thread tension during reeling. Class 76c, group 20. Ger. patent 159 348 dated Sep 11, 1904. In German. 1.50

8406-8408 PB L 70284 SÄCHSISCHE MASCHINENFABRIK VORM. RICH. HARTMANN, AKTIENGESELLSCHAFT, CHEMNITZ. Drive for the feed roller of automatic mules. Class 76c, group 20. Ger. patent 164 866 dated Mar 26, 1905. In German. 1.50
Supplement to patent 160 262 of Apr 30, 1904.

8409-8411 PB L 70284 SÄCHSISCHE MASCHINENFABRIK VORM. RICH. HARTMANN, AKT.-GES., CHEMNITZ. Drive for the feed roller of automatic mules. Class 76c, group 20. Ger. patent 160 262 dated Apr 30, 1904. In German. 1.50

8412-8414 PB L 70284 LICHTNER, KARL and THIEL, JOS. (Inventors). Device for automatic mules (automatic machines) for automatic stop of carriage. Class 76c, group 20. Ger. patent 179 445 dated Jan 6, 1906. In German. 1.50

8415-8417 PB L 70284 SCHIMMEL, OSCAR, & CO., ACTIENGESELLSCHAFT, CHEMNITZ. Brake for counter winder of automatic mules (automatic machines). Class 76c, group 20. Ger. patent 176 914 dated Mar 8, 1906. In German. 1.50

8418-8423 PB L 70284 SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS, BELG. Process and device for regulation of thread feeding for spinning machines, especially for automatic mules. Class 76c, group 20. Ger. patent 200 675 dated Aug 10, 1907. In German. 1.50

8424-8426 PB L 70284 PLATT-HIGGINS, ARTHUR (Inventor). Device on "mule"-fine count spinning machines for stripping off nodules and the like from yarn. Class 76c, group 20. Ger. patent 80 674 dated May 20, 1894. In German. 1.50

8427-8436 PB L 70284 KÖSTER, EDUARD (Inventor). Automatic fine-spinning machine for carded yarn. Class 76c, group 20. Ger. patent 2142 dated Oct 17, 1877. In German. 1.50

8437-8442 PB L 70284 DENES, PETER (Inventor). Mule-spinning machine. Class 76c,

group 20. Ger. patent 628 362 dated Jun 26, 1934. In German. 1.50

8443-8445 PB L 70284 SOCIÉTÉ ALSACIENNE DE CONSTRUCTIONS MÉCANIQUES, MULHOUSE, HAUT-RHIN, UND ROGER TAINE, MADELEINE-LEZ-LILLE, FRANKREICH. Sheet metal carriage for mule spinning machine. Class 76c, group 20. Ger. patent 630 945 dated Jun 27, 1934. In German. 1.50

8446-8450 PB L 70284 SCHWALBE, C. E. (Inventor). Roving roller drive on automatic mules for carded yarn. Class 76c, group 20. Ger. patent 78 193 dated Jun 7, 1894. In German. 1.50

8451-8453 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Mule-spinning machine. Class 76c, group 20. Ger. patent 670 076 dated Oct 27, 1936. Inventors: Schubert and Schütze. In German. 1.50

8454-8458 PB L 70284 SCHIMMEL, OSCAR (Inventor). Spindle drive for automatic mules for carded yarn with three speeds. Class 76c, group 20. Ger. patent 18 686 dated Sep 25, 1880. In German. 1.50

8459-8460 PB L 70284 WINTGENS, ALBERT (Inventor). Innovation on mule-fine spinning machines for carded yarn. Class 76c, group 20. Ger. patent 17 680 dated Sep 1, 1881. In German. 1.50

8461-8463 PB L 70284 DITTMANN, RICHARD (Inventor). Gathering apparatus for waste threads on mule-fine spinning machines. Class 76c, group 20. Ger. patent 17 618 dated Oct 18, 1881. In German. 1.50

8464-8466 PB L 70284 STEINER, JULIUS (Inventor). Drive for automatic mules for carded yarn to obtain triple spindle speed independant of the movement of the carriage. Class 76c, group 20. Ger. patent 15 455 dated Aug 22, 1880. In German. 1.50

8467-8469 PB L 70284 SÄCHSISCHE MASCHINENFABRIK, CHEMNITZ. Spindle drive for fine spinning machines for carded yarn. Class 76c, group 20. Ger. patent 16 284 dated May 7, 1881. In German. 1.50

8470-8477 PB L 70284 SACKMANN, H. (Inventor). Innovations on automatic mule-fine spinning machines for carded yarn. Class 76c, group 20. Ger. patent 13 176 dated Aug 3, 1880. In German. 1.50

8478-8481 PB L 70284 SCHIMMEL, OSCAR (Inventor). Spindle driving device for automatic machines for carded yarn with three speeds. Class 76c, group 20. Ger. patent 11 773 dated May 29, 1880. In German. 1.50

8482-8484 PB L 70284 AUBRY, JOSEPH (Inventor). Carriage drive for automatic mules. Class 76c, group 20. Ger. patent 90 638 dated Jun 21, 1896. In German. 1.50

8485-8490 PB L 70284 SÄCHSISCHE MASCHINENFABRIK ZU CHEMNITZ, CHEMNITZ. Driving device for the roving-roller of automatic mules for carded yarn. Class 76c, group 20. Ger. patent 60 249 dated Feb 13, 1890. In German. 1.50

8491-8495 PB L 70284 DAMPF- & SPINNEREI-MASCHINENFABRIK, CHEMNITZ. Belt guide for automatic mules with triple spindle speed. Class 76c, group 20. Ger. patent 63 201 dated Jul 1891. In German. 1.50

8496-8498 PB L 70284 FIRMA G. JOSEPHY'S ERBEN, BIELITZ. Automatic mule with three spindle speeds. Class 76c, group 20. Ger. patent 47 294 dated Jun 23, 1888. In German. 1.50

8499-8503 PB L 70284 BUCHOLD, ROBERT (Inventor). Drive of roving rollers on automatic mules for carded yarn. Class 76c, group 20. Ger. patent 67 996 dated Jun 2, 1892. In German. 1.50

8504-8507 PB L 70284 SÄCHSISCHE MASCHINENFABRIK ZU CHEMNITZ, CHEMNITZ. Automatic mule. Class 76c, group 20. Ger. patent 104 058 dated Jul 22, 1896. In German. 1.50

8508-8512 PB L 70284 SCHWALBE, C. E. (Inventor). Automatic mule for carded yarn with simultaneously retarded movement trolley (carriage) and roving roller. Class 76c, group 20. Ger. patent 70 757 dated Feb 16, 1893. In German. 1.50

8513-8519 PB L 70284 SCHWALBE, C. E. (Inventor). Automatic mule for carded yarn. Class 76c, group 20. Ger. patent 72 485 dated Jan 27, 1893. In German. 1.50

8520-8523 PB L 70284 BRAUN, ARNOLD and WENTZLER, JAKOB (Inventors). Automatic mule. Class 76c, group 20. Ger. patent 131 709 dated Nov 16, 1901. In German. 1.50
Supplement to patent 125 659 of Apr 26, 1901.

8524-8526 PB L 70284 WEBER, J., & CO., USTER. Carriage buffer for automatic mules. Class 76c, group 20. Ger. patent 145 166 dated Aug 8, 1902. In German. 1.50

8527-8529 PB L 70284 HETHERINGTON, JOHN, & SONS LTD. UND GEORGE EDWARD ROSS, MANCHESTER. Carriage of automatic mule made of metal. Class 76c, group 20. Ger. patent 152 876 dated Sep 10, 1903. In German. 1.50

8530-8532 PB L 70284 SCHIMMEL, OSCAR, & CO., ACTIENGESELLSCHAFT, CHEMNITZ. Automatic mule. Class 76c, group 20. Ger. patent 176 913 dated Oct 29, 1905. In German. 1.50

8533-8535 PB L 70284 SÄCHSISCHE KAMMGARNSPINNEREI ZU HARTHAU UND W. LAUTH, HARTHAU, ERZGEBIRGE. Automatic mule with electric drive. Class 76c, group 20. Ger. patent 106 815 dated Feb 16, 1899. In German. 1.50
Supplement to patent 94 894 of Mar 24, 1897.

8536-8538 PB L 70284 MÜHLENBECK, EDOUARD (Inventor). Device for cleaning the carriage of automatic mules. Class 76c, group 20. Ger. patent

110 535 dated Jun 6, 1899. In German. 1.50

8539-8541 PB L 70284 SCHIMMEL, OSCAR, & CO., AKTIENGESELLSCHAFT, CHEMNITZ. Automatic mule. Class 76c, group 20. Ger. patent 108 746 dated Jun 23, 1899. In German. Supplement to patent 99 459 of Oct 9, 1897. 1.50

8542-8544 PB L 70284 FRANKE, PAUL (Inventor). Automatic mule with electric drive. Class 76c, group 20. Ger. patent 101 822 dated May 25, 1898. In German. 1.50

8545-8549 PB L 70284 BEYER, AMANDUS (Inventor). Automatic mule with revolution counter driven by the drum shaft. Class 76c, group 20. Ger. patent 84 572 dated Dec 15, 1894. In German. 1.50

8550-8551 PB L 70284 COCKE, JAMES SAMUEL and HARDWICK, ARTHUR (Inventors). Mule-fine spinning machine with double spindle series. Class 76c, group 20. Ger. patent 21 569 dated Sep 12, 1882. In German. 1.50

8552-8555 PB L 70284 SACKMANN, H. (Inventor). Automatic mule. Class 76c, group 20. Ger. patent 18 994 dated Nov 26, 1881. In German. 1.50

8556-8558 PB L 70284 CHARIE, ERNEST (Inventor). Device for driving the carriage of automatic mules. Class 76c, group 20. Ger. patent 89 303 dated Dec 12, 1895. In German. 1.50

8559-8561 PB L 70284 CLEGG, ROBERT and CLEGG, JAMES (Inventors). Automatic mule. Class 76c, group 20. Ger. patent 88 456 dated Nov 14, 1895. In German. 1.50

8562-8564 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN A.G., CHEMNITZ. Mule spinning machine, the carriage of which is moved by hydraulic means when leaving or entering. Class 76c, group 20. Ger. patent 706 282 dated Dec 28, 1939. Inventors: Schubert and Vogel. In German. 1.50

8565-8567 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Steering device for a work piece located in the center of the carriage of a mule spinning machine. Class 76c, group 20. Ger. patent 690 764 dated Sep 18, 1938. Inventors: Schubert and Seifert. In German. 1.50

8568-8570 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Mule-spinning machine with a device for reversing the machine from right to left of the spindles (and reverse). Class 76c, group 20. Ger. patent 685 076 dated Feb 13, 1938. Inventor: Schubert. In German. 1.50

8571-8573 PB L 70284 LENOIR, VICTOR (Inventor). Devices on the automatic mule for obtaining different twist directions of the spindle rollers. Class 76c, group 20. Ger. patent 22 240 dated Oct 31, 1882. In German. 1.50

8574-8580 PB L 70284 SÄCHSISCHE MASCHINENFABRIK, CHEMNITZ. Automatic mule for carded yarn with triple spindle speed. Class 76c, group 20. Ger. patent 24 649 dated Mar 13, 1883. In German. 1.50

8581-8583 PB L 70284 HEIPT, ALBERT EMIL (Inventor). Spindle driving device for automatic mules. Class 76c, group 20. Ger. patent 102 788 dated Aug 27, 1897. In German. 1.50

8584-8586 PB L 70284 HILDEN, W. (Inventor). Process and device for stretching condensed sliver on automatic mules. Class 76c, group 20. Ger. patent 157 032 dated Feb 14, 1904. In German. 1.50

8587-8590 PB L 70284 ELSTNER, THEODOR (Inventor). Device for automatically cleaning the carriage hood on automatic mules. Class 76c, group 20. Ger. patent 142 646 dated Sep 6, 1902. In German. 1.50

8591-8593 PB L 70284 VOGEL, FRANZ EMIL (Inventor). Automatic mule for right- or left-hand twisted thread. Class 76c, group 20. Ger. patent 55 380 dated Mar 7, 1890. In German. 1.50

8594-8596 PB L 70284 FORSTMANN, C. (Inventor). Device on automatic mules for preventing the recoil of the trolley when entering. Class 76c, group 20. Ger. patent 132 012 dated Jul 26, 1901. In German. 1.50

8597-8600 PB L 70284 BURKARD, PAUL and others. Jenny mules. Class 76c, group 20. Ger. patent 557 323 dated Feb 1, 1931. In German. 1.50

8601-8603 PB L 70284 SOCIÉTÉ ALSACIENNE DE CONSTRUCTIONS MÉCANIQUES, MÜLHAUSEN, ELSASS, FRANKREICH. Elastic socket for jenny mules with differential drive. Class 76c, group 20. Ger. patent 540 390 dated Mar 10, 1931. In German. 1.50

8604-8606 PB L 70284 SADZOT, LOUIS (Inventor). Device for reversing the rotary direction of spindles for jenny mules. Class 76c, group 20. Ger. patent 554 836 dated Aug 6, 1929. In German. 1.50

8607-8609 PB L 70284 SÄCHS. TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Controlling device for driving ropes of jenny mules and other machines with rope drive. Class 76c, group 20. Ger. patent 557 495 dated Oct 30, 1931. Inventor: Legna. In German. 1.50

8610-8612 PB L 70284 SOCIÉTÉ ALSACIENNE DE CONSTRUCTIONS MÉCANIQUES, MÜLHAUSEN, ELSASS, FRANKREICH. Jenny mules. Class 76c, group 20. Ger. patent 490 865 dated Feb 1, 1929. In German. 1.50

8613-8615 PB L 70284 AKTIENGESELLSCHAFT BROWN, BOVERI & CIE., BADEN, SCHWEIZ. Elec-

trical drive for jenny mules. Class 76c, group 20. Ger. patent 552 810 dated Jan 16, 1931. In German. 1.50

8616-8618 PB L 70284 SÄCHSISCHE TEXTILMASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Jenny mule. Class 76c, group 20. Ger. patent 526 617 dated Feb 25, 1925. In German. 1.50

8619-8621 PB L 70284 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Jenny mule with multi-motor drive. Class 76c, group 20. Ger. patent 502 868 dated May 11, 1928. Inventor: Schiebuhr. In German. 1.50
Supplement to patent 475 736.

8622-8625 PB L 70284 LÜNSKENS, FRANZ JOSEF (Inventor). Device for jenny mule driving carriage and the condensed sliver cylinder with gradually decreasing speed. Class 76c, group 20. Ger. patent 495 159 dated Jan 18, 1928. In German. 1.50

8626-8630 PB L 70284 VOIGTLÄNDER-TETZNER, HERBERT (Inventor). Driving gear for spinning machine, especially automatic mule. Class 76c, group 20. Ger. patent 247 572 dated Sep 7, 1911. In German. 1.50
Supplement to patent 247 089 of Sep 14, 1910.

8631-8633 PB L 70284 SCHUBERT & SALZER MASCHINENFABRIK AKT.-GES., CHEMNITZ. Feeding arrangement for jenny mules. Class 76c, group 20. Ger. patent 456 078 dated Dec 17, 1926. In German. 1.50

8634-8636 PB L 70284 HAASE, CARL (Inventor). Jenny mule- and twisting machine for hand drive. Class 76c, group 20. Ger. patent 354 757 dated Mar 24, 1921. In German. 1.50

8637-8639 PB L 70284 SCHUBERT & SALZER MASCHINENFABRIK AKT.-GES., CHEMNITZ. Device for jenny mules producing variable feeding speeds. Class 76c, group 20. Ger. patent 477 966 dated Oct 6, 1926. In German. 1.50

8640-8643 PB L 70284 FIEDLER, JOH. HEINRICH (Inventor). Jenny mules with moveable spindles and moveable drawing frame. Class 76c, group 20. Ger. patent 482 778 dated Feb 15, 1925. In German. 1.50

8644-8646 PB L 70284 FIRMA C. E. SCHWALBE, WERDAU, SA. Electric single drive for jenny mules. Class 76c, group 20. Ger. patent 490 625 dated Jul 14, 1928. In German. 1.50

8647-8650 PB L 70284 ATELIERS HOUGET SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS, BELGIEN. Spindle drum drive for jenny mules. Class 76c, group 20. Ger. patent 492 396 dated May 24, 1927. In German. 1.50

8651-8653 PB L 70284 SAECHSISCHE MASCHINENFABRIK VORM. RICH. HARTMANN AKT.-GES., CHEMNITZ. Device for automatic machines to drive the carriage with a single graded twist speed by means of a revolving gear. Class 76c, group 20. Ger. patent 242 980 dated Apr 27, 1910. In German. 1.50

8654-8656 PB L 70284 SOCIÉTÉ ANONYME VERVIÉTOISE POUR LA CONSTRUCTION DE MACHINES, VERVIERS, BELG. Braking arrangement for the counter-reeler of automatic mules for weakening its blow against the threads while turning off. Class 76c, group 20. Ger. patent 157 353 dated Feb 17, 1904. In German. 1.50
Supplement to patent 150 898 of Oct 14, 1904.

8657-8664 PB L 70284 SAECHSISCHE MASCHINENFABRIK, CHEMNITZ. Arrangement on automatic mules for carded yarn to obtain a compulsory change of belt for different speeds of spindles. Class 76c, group 20. Ger. patent 89 319 dated Dec 3, 1895. In German. 1.50

8665-8667 PB L 70284 HILDEN, WILHELM (Inventor). Process for spinning condensed slivers on automatic mules ("mulejennies, selfactors"). Class 76c, group 20. Ger. patent 221 102 dated Feb 20, 1909. In German. 1.50

8668-8670 PB L 70284 DAVOINE, PAUL and JANNEYRIAT, JOSEPH (Inventor). Automatic mules with a double course of trolley-spindles. Class 76c, group 20. Ger. patent 223 484 dated Jun 12, 1908. In German. 1.50

8671-8675 PB L 70284 ZEDLITZ, FERDINAND (Inventor). Process and device for controlling the method of working by automatic mules. Class 76c, group 20. Ger. patent 226 309 dated Apr 2, 1909. In German. 1.50

8676-8678 PB L 70284 BODEMER, JOHANN GEORG (Inventor). Multi-grooved whirl of cord or rope for automatic mules and the like. Class 76c, group 20. Ger. patent 171 141 dated Jul 2, 1905. In German. 1.50

8679-8682 PB L 70284 SAECHSISCHE KAMMGARNSPINNEREI ZU HARTHAU, HARTHAU, ERZGEB. Device for changing the rope drive adjustment in any way for right and left handed twist thread, where both guide rollers set directly before the twist wheel (twist wharve). Class 76c, group 20. Ger. patent 221 101 dated Mar 13, 1908. In German. 1.50

8683-8685 PB L 70284 SCHIMMEL, OSCAR, & CO., AKT.-GES., CHEMNITZ. Automatic mules with several spindle speeds adjusted by starting the carriage, variable during the carriage exit and changeable condensed sliver feeding. Class 76c, group 20. Ger. patent 254 216 dated Dec 19, 1911. In German. 1.50

8686-8688 PB L 70284 DAMPF- UND SPINNEREI-MASCHINEN-FABRIK, CHEMNITZ. Disengaging gear for automatic mules. Class 76c, group 20. Ger. patent 26 817 dated Oct 6, 1883. In German. 1.50

8689-8692 PB L 70284 FIRMA C. E. SCHWALBE, WERDAU I.S. Belt guide for automatic mules for carded yarn. Class 76c, group 20. Ger.

patent 101 720 dated Jan 25, 1898. In German. 1.50
Supplement to patent 95 773 of Jul 11, 1897.

8693-8695 PB L 70284 OESTERLE, XAVER (Inventor). Thread cleaner for mule-fine spinning machines. Class 76c, group 20. Ger. patent 95 384 dated Dec 6, 1897. In German. 1.50

8696-8698 PB L 70284 SCHWALBE, C. E. (Inventor). Belt guide for automatic mules for carded yarn. Class 76c, group 20. Ger. patent 95 773 dated Jul 11, 1897. In German. 1.50

8699-8701 PB L 70284 RIEHL, ALFRED (Inventor). Device for automatic mules to stretch the threads. Class 76c, group 20. Ger. patent 98 783 dated May 5, 1897. In German. 1.50

8702-8704 PB L 70284 KRIEGEL, ADOLF (Inventor). Engaging and disengaging mechanism for automatic mules. Class 76c, group 20. Ger. patent 98 412 dated Sep 15, 1897. In German. 1.50

8705-8707 PB L 70284 BASLER, AUGUST (Inventor). Winding device for automatic mules. Class 76c, group 20. Ger. patent 106 402 dated Jan 29, 1899. In German. 1.50

8708-8710 PB L 70284 FLURI, MATHIAS (Inventor). Stop device for automatic mules. Class 76c, group 20. Ger. patent 96 166 dated Jan 24, 1897. In German. 1.50

8711-8713 PB L 70284 SAECHSISCHE KAMMGARNSPINNEREI ZU HARTHAU UND W. LAUTH, HARTHAU, ERZGEB. Automatic mule with electric drive. Class 76c, group 20. Ger. patent 94 894 dated Mar 24, 1897. In German. 1.50

8714-8716 PB L 70284 GREEN, SAMUEL (Inventor). Cushioning device for carriages of automatic mules. Class 76c, group 20. Ger. patent 92 601 dated May 8, 1896. In German. 1.50

8717-8721 PB L 70284 KOECHLIN, ALBERT (Inventor). Device for the determination of the twists on yarn of a tissue and the duration of the twisting period on the automatic mule. Class 76c, group 20. Ger. patent 91 542 dated Sep 5, 1895. In German. 1.50

PB L 70329. REICHSPATENTAMT, BERLIN. German patents. Class 29a, Groups 6 & 7: Mechanical production of spun fibers. (FIAT Microfilm Reel BB-99, Frames 4832-5718) 1882-1942. 886 f. Price: Microfilm-$6.00 - Enlargement print-$89.00
This is a microfilm reel prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB, patent, and frame numbers when ordering individual items. In German.

Frames	Title	Price
4832-4834 PB L 70329	ROWELL, CHARLES VICTOR (Inventor). Process for production of spinning fibers. Ger. patent 589 844. Class 29a, group 7 dated Feb 13, 1932. In German.	$1.50
4835-4836 PB L 70329	KRON, RUDOLF (Inventor). Process for production of directly spinnable fibers from vegetables. Ger. patent 324 387. Class 29a, group 7 dated Dec 25, 1917. In German.	1.50

Supplement to patent No. 304 252.

4837 PB L 70329 GMINDER, EMIL (Inventor). Process for production of spinning fibers from unroasted bast fiber stalks. Ger. patent 538 394. Class 29a, group 7 dated Jun 20, 1929. In German. 1.50

4838-4840 PB L 70329 NORZI, ERCOLE (Inventor). Process and device for production of textile fibers from fibrous stalks. Ger. patent 626 371. Class 29a, group 7 dated May 9, 1933. In German. 1.50

4841-4844 PB L 70329 LIPPMANN, ROBERT (Inventor). Process and device for production of spinning fibers from wood in form of small boards. Ger. patent 636 720. Class 29a, group 7 dated Mar 18, 1934. In German. 1.50

4845 PB L 70329 KOHN, SIMON (Inventor). Fiber for production of yarns, fabrics, felts, pressings, etc. Ger. patent 147 164. Class 29a, group 7 dated May 10, 1903. In German. 1.50

4846-4849 PB L 70329 BREMER BAUMWOLLWERKE G.M.B.H., HEMELINGEN B. BREMEN. Machine for extraction of fibers sticking to cotton seed husks and other similar fibrous wastes. Ger. patent 183 923. Class 29a, group 7 dated May 2, 1906. In German. 1.50

4850-4852 PB L 70329 BREMER BAUMWOLLWERKE G.M.B.H., HEMELINGEN B. BREMEN. Machine for extraction of fibers sticking to cotton seed husks and other similar fibrous wastes. Ger. patent 212 183. Class 29a, group 7 dated Nov 29, 1908. In German. 1.50
Supplement to patent 196 677 of Mar 16, 1907.

4853-4856 PB L 70329 SEIDENWERK SPINNHÜTTE AKT.-GES., CELLE. Process for equally softening cocoons of silkworms, etc. Ger. patent 686 939. Class 29a, group 7 dated Jun 26, 1938. Inventor: Schantz. In German. 1.50

4857-4860 PB L 70329 MASCHINENBAU UND METALLTUCHFABRIK AKT.-GES. VORM. GOTTL. HEERBRANDT, RAGUHN. Device for separating solubilized bast fibers into fibers. Ger. patent 687 731. Class 29a, group 7 dated Apr 10, 1937. Inventor: Dittrich. In German. 1.50

4861-4863 PB L 70329 GMINDER, EMIL (Inventor). Device for discharging the straw from bast fibers. Ger. patent 688 386. Class 29a, group 7 dated Dec 10, 1938. In German. 1.50

4864-4865 PB L 70329 ELSTER, JOHANNES (Inventor). Process and device for taking off bast bands from pre-boiled ramified bast fiber stalks. Ger. patent 692 045. Class 29a, group 7 dated Nov 29, 1938. In German. 1.50

4866-4868 PB L 70329 KRUPP, FRIED., GRUSONWERKE AKT.-GES., MAGDEBURG-BUCKAU. Machine for preparing fibrous plants. Ger. patent 691 992. Class 29a, group 7 dated Aug 3, 1938. In-

ventors: Wiegand and Froye. In German. 1.50

4869-4871 PB L 70329 ELSTER, JOHANNES (Inventor). Device for decorticating pre-boiled hemp-, nettle-, etc., fiber stalks. Ger. patent 692 046. Class 29a, group 7 dated Jan 3, 1939. In German. 1.50

4872-4875 PB L 70329 ELSTER, JOHANNES (Inventor). Device for automatic feeding of bast fiber stalks to the peeling machine. Ger. patent 692 651. Class 29a, group 7 dated Aug 6, 1938. In German. 1.50

4876-4878 PB L 70329 SPINNEREIMASCHINEN-FABRIK SEYDEL & CO., BIELEFELD. Machine for removing knots from used cords, used thread, etc. Ger. patent 261 840. Class 29a, group 7 dated Apr 21, 1912. In German. 1.50

4879-4883 PB L 70329 IMKAMP, WILHELM (Inventor). Process and device for solubilizing bast fiber stalks. Ger. patent 658 007. Class 29a, group 7 dated Nov 24, 1932. In German. 1.50

4884-4886 PB L 70329 GMINDER, EMIL (Inventor). Process for production of a textile wick-shaped long-fiber bundle from green hemp fibers, specially green seed hemp fibers. Ger. patent 676 435. Class 29a, Group 7 dated Jun 25, 1938. In German. 1.50

4887-4890 PB L 70329 MÜLLER, GUSTAV (Inventor). Process for grinding feathers to feather down in the form of dust for production of felted feather plush. Ger. patent 7118. Class 29a, group 7 dated Sep 18, 1887. In German. 1.50

4891-4893 PB L 70329 GMINDER, ULRICH, G.M.B.H., REUTLINGEN. Process for production of textile bast fibers in form of a band. Ger. patent 715 505. Class 29a, group 7 dated Sep 24, 1940. Inventor: Gminder, Emil. In German. 1.50

4894-4896 PB L 70329 GMINDER, ULRICH, G.M.B.H., REUTLINGEN. Process for production of textile bast fibers in form of a band. Ger. patent 718 817. Class 29a, group 7 dated Jan 28, 1941. Inventor: Gminder, Emil. In German. Supplement to patent 715 505. 1.50

4897-4898 PB L 70329 GMINDER, ULRICH, G.M.B.H., REUTLINGEN. Process for production of textile bast fibers in form of a band. Ger. patent 718 818. Class 29a, group 7 dated Mar 7, 1941. Inventor: Gminder, Emil. In German. Supplement to patent No. 715 505. 1.50

4899-4901 PB L 70329 HAAS, JR., HERMANN (Inventor). Process and device for removing straw from pre-broken bast fiber stalks. Ger. patent 726 397. Class 29a, group 7 dated Jun 19, 1941. In German. 1.50

4902-4904 PB L 70329 RALENKÖTTER, F. & H., WIEDENBRÜCK. Device for freeing old cord-ends from knots. Ger. patent 726 398. Class 29a, group 7 dated Mar 5, 1941. Inventor: Ralenkötter, Gerhard. In German. 1.50

4905-4908 PB L 70329 BINDLER, HUGO (Inventor). Separating device for flax stalks. Ger. patent 732 850. Class 29a, group 7 dated Nov 24, 1940. In German. 1.50

4909-4911 PB L 70329 GMINDER, ULRICH, G.M.B.H., REUTLINGEN. Process and device for decomposing and further deliquifying of wet bast fibers from wood. Ger. patent 744 631. Class 29a, group 7 dated Jan 14, 1942. Inventor: Gminder, Emil. In German. 1.50

4912 PB L 70329 CLAVIEZ, EMIL (Inventor). Process for production of fibers from vegetables, specially from reed mace. Ger. patent 339 270. Class 29a, group 7 dated May 17, 1918.. In German. 1.50

4913-4915 PB L 70329 I.G. FARBENINDUSTRIE AG, FRANKFURT, MAIN. Process for production of fibers from linear polyamides of high molecular weight. Ger. patent 746 593. Class 29a, group 7 dated Feb 4, 1939. In German. 1.50

4916-4919 PB L 70329 BRATKOWSKI, WLADYSLAW, WARSAW and ZYRARDOWER MANUFAKTUREN AG, ZYRARDOW, GENERALGOUVERNEMENT. Device for wet treatment of bast fibers in form of bands. Ger. patent 747 127. Class 29a, group 7 dated Jul 11, 1941. Inventor: Bratkowski. In German. 1.50

4920-4922 PB L 70329 ELSTER, JOHANNES (Inventor). Device for decorticating pre-boiled fibrous stalks, especially nettle and hemp stalks, by spraying. Ger. patent 682 826. Class 29a, group 7 dated Jul 12, 1938. In German. Supplement to patent 680 948. 1.50

4923-4925 PB L 70329 KRUPP, FRIED., GRUSONWERK AKT.-GES., MAGDEBURG-BUCKAU. Machine for purifying fibers, especially vegetable fibers. Ger. patent 684 973. Class 29a, group 7 dated Jul 9, 1938. Inventor: Mertz, Fritz. In German. 1.50

4926-4929 PB L 70329 MASCHINENBAU UND METALLTUCHFABRIK AKT.-GES., VORM. GOTTL. HEERBRANDT, RAGUHN B. DESSAU. Device for separating fibers from pre-broken unroasted bast fiber stalks. Ger. patent 686 859. Class 29a, group 7 dated Jun 28, 1938. Inventor: Dittrich, Rudolf. In German. 1.50

4930-4932 PB L 70329 STUTZ-BENZ, EMIL (Inventor). Device for spreading out flax stalks. Ger. patent 358 978. Class 29a, group 7 dated May 22, 1920. In German. 1.50

4933-4935 PB L 70329 THE FIBRE CORPORATION LIMITED IN LONDON. Machine for freeing flax from seed. Ger. patent 352 525. Class 29a, group 7 dated May 7, 1920. In German. 1.50

4936-4937 PB L 70329 LANDAUER, GUSTAV (Inventor). Process for polishing hard fibers, especially coir fibers. Ger. patent 665 878. Class 29a, group 7 dated Dec 3, 1935. In German. 1.50

4938-4941 PB L 70329 RADEBEULER MASCHINENFABRIK AUGUST KOEBIG G.M.B.H., RADEBEUL, DRESDEN. Process for production of spiral staple-fibers from homogeneous

foils. Ger. patent 673 793. Class 29a, group 7 dated Mar 9, 1935. In German. 1.50

4942-4945 PB L 70329 HAYES-GRATZE, EUGENE VICTOR (Inventor). Machine for softening, smoothing and adjusting long-fibers. Ger. patent 674 365. Class 29a, group 7 dated Nov 7, 1936. In German. 1.50

4946-4949 PB L 70329 ELSTER, JOHANNES (Inventor). Device for separating and feeding bast fiber stalks, especially nettle stalks, to the peeling machine. Ger. patent 672 017. Class 29a, group 7 dated Sep 15, 1937. In German. 1.50

4950-4952 PB L 70329 ELSTER, JOHANNES (Inventor). Process for production of textile fibers from the bast stripped from the stalk. Ger. patent 345 883. Class 29a, group 7 dated Oct 28, 1916. In German. 1.50

4953-4955 PB L 70329 FRANK, HEINRICH (Inventor). Flax rippling machine. Ger. patent 346 403. Class 29a, group 7 dated Nov 7, 1920. In German. 1.50

4956-4963 PB L 70329 REICHMANN, DAVIDA and others (Inventors). Device for solubilizing straw and other vegetables for production of textile fibers. Ger. patent 351 485. Class 29a, group 7 dated Mar 20, 1918. In German. 1.50

4964-4967 PB L 70329 GMINDER, EMIL (Inventor). Device for softening, refining and purifying refuse and short fibers by an edge mill-like friction apparatus with several rollers. Ger. patent 447 209. Class 29a, group 7 dated Feb 24, 1925. In German. 1.50

4968-4970 PB L 70329 WICKEL, HERMANN (Inventor). Device for spreading luffa (=sponge-like textile fabric). Ger. patent 43 257. Class 29a, group 7 dated May 6, 1887. In German. 1.50

4971-4974 PB L 70329 ELSTER, JOHANNES (Inventor). Peeling machine for nettle stalks. Ger. patent 661 568. Class 29a, group 7 dated May 28, 1936. In German. 1.50

4975-4977 PB L 70329 ELSTER, JOHANNES (Inventor). Device for feeding nettle stalks to a bast peeling machine. Ger. patent 654 922. Class 29a, group 7 dated May 16, 1936. In German. 1.50

4978-4979 PB L 70329 VON HASSEL, GEORG M. (Inventor). Process for producing fibers from fibrous plant material, as stalks and leaves. Ger. patent 662 294. Class 29a, group 7 dated Apr 3, 1936. In German. 1.50

4980-4982 PB L 70329 ELSTER, JOHANNES (Inventor). Device for discharging and wet operation of nettle bark bands. Ger. patent 663 073. Class 29a, group 7 dated May 28, 1936. In German. 1.50

4983-4985 PB L 70329 NIEDERLÄNDER, THADDÄUS (Inventor). Process for decorticating fibrous plants. Ger. patent 379 968. Class 29a, group 7 dated Nov 2, 1921. In German. 1.50

4986-4989 PB L 70329 MEINCK, WALTER (Inventor). Machine for processing fiber material (stalks). Ger. patent 385 079. Class 29a, group 7 dated Nov 21, 1922. In German. 1.50

4990-4992 PB L 70329 INDUSTRIE-VERWALTUNG AKT.-GES., BERLIN and BRUNO POSSANNER V. EHRENTHAL, CÖTHEN I. ANH. Cylinder washing machine for washing and mechanical purifying of spinning fibers. Ger. patent 386 533. Class 29a, group 7 dated Jul 31, 1921. In German. 1.50

4993-4994 PB L 70329 GMINDER, EMIL (Inventor). Process for removing fibers from stalks and for final cleaning of the obtained fiber. Ger. patent 437 931. Class 29a, group 7 dated May 9, 1925. In German. 1.50

4995-4997 PB L 70329 ROEDER, ALFONS (Inventor). Suction device for drawing off dust in hemp friction apparatuses. Ger. patent 332 485. Class 29a, group 7 dated Feb 18, 1920. In German. 1.50

4998-5000 PB L 70329 WAENTIG, PERCY and GIERISCH, WALTER (Inventors). Device for removing impurities, especially from cellulose and fiber material by means of spraying. Ger. patent 333 973. Class 29a, group 7 dated Jul 22, 1920. In German. 1.50

5001 PB L 70329 KÜNZEL, GEORG (Inventor). Process for removing vegetable glue from airas and similar difficultly dissoluble fibrous plants. Ger. patent 321 672. Class 29a, group 7 dated Aug 11, 1918. In German. 1.50

5002-5005 PB L 70329 VAN MAERCKE, JOSEPH and VAN STEENKISTE, JOSEPH (Inventors). Rippling machine for freeing flax, hemp, etc. from joints and capsules. Ger. patent 328 051. Class 29a, group 7 dated May 19, 1914. In German. 1.50

5006-5009 PB L 70329 INDUSTRIE-VERWALTUNG AKT.-GES., BERLIN and B. V. POSANNER, CÖTHEN I. ANH. Device for production of impregnated spinning cellulose. Ger. patent 368 591. Class 29a, group 7 dated Jul 31, 1921. In German. 1.50

5010-5012 PB L 70329 LEYST-KÖCHENMEISTER, CARL (Inventor). Circulating heatable boiler for solubilizing plants. Ger. patent 369 588. Class 29a, group 7 dated Jul 6, 1920. In German. 1.50

5013-5015 PB L 70329 MITCHELL, THOMAS EDWARD and others (Inventors). Device for freeing flax stalks and other fibrous plants from seed. Ger. patent 369 839. Class 29a, group 7 dated Oct 4, 1921. In German. 1.50

5016-5018 PB L 70329 ULLERSDORFER FLACHSSPINNEREI HUGO VON LÖBBECKE, ULLERSDORF, KR. GLATZ. Flax rippling machine with circulating beating drum. Ger. patent 374 384. Class 29a, group 7 dated Jun 21, 1922. In German. 1.50
Supplement to patent No. 364 458.

5019-5020 PB L 70329 GMINDER, EMIL (Inventor). Device for softening, refining and purifying refuse and short fibers by an edge-mill like friction apparatus with several rollers. Ger. patent 447 210. Class

29a, group 7 dated Dec 10, 1925. In German. 1.50
Supplement to patent No. 447 209.

5021-5022 PB L 70329 GMINDER, EMIL (Inventor). Device for stringing of stalks and for aftertreatment of the obtained fiber. Ger. patent 447 991. Class 29a, group 7 dated May 29, 1925. In German. 1.50
Supplement to patent No. 437 931.

5023-5025 PB L 70329 LAPIERRE, LOUIS (Inventor). Boiler with revolving screening baskets for solubilizing hemp and other bast fibers. Ger. patent 447 931. Class 29a, group 7 dated Jul 1, 1926. In German. 1.50

5026-5030 PB L 70329 DELUBAC, AUGUSTE (Inventor). Process and device for cutting or separating cocoons. Ger. patent 455 366. Class 29a, group 7 dated Jul 23, 1926. In German. 1.50

5031-5032 PB L 70329 GMINDER, EMIL (Inventor). Process and device for breaking fiber stalk pieces. Ger. patent 456 373. Class 29a, group 7 dated Sep 30, 1926. In German. 1.50

5033-5035 PB L 70329 PROCTOR, ALEXANDER (Inventor). Machine for freeing stalks from seed. Ger. patent 513 050. Class 29a, group 7 dated Sep 7, 1929. In German. 1.50

5036 PB L 70329 GMINDER, EMIL (Inventor). Process for production of stable fibers from ramie stalks. Ger. patent 592 736. Class 29a, group 7 dated Jun 7, 1932. In German. 1.50

5037-5039 PB L 70329 KRUPP, FRIEDR., GRUSONWERK A.G., MAGDEBURG-BUCKAU. Device for treatment of fibers. Ger. patent 594 503. Class 29a, group 7 dated Dec 5, 1931. In German. 1.50

5040-5042 PB L 70329 TUDOR, IVAN and TUDOR-HART, OWEN (Inventors). Device for polishing and crimping fibers. Ger. patent 594 759. Class 29a, group 7 dated Jul 11, 1931. In German. 1.50

5043-5046 PB L 70329 LUCHSINGER, ERNST (Inventor). Device for holding fiber material during treatment. Ger. patent 606 872. Class 29a, group 7 dated Feb 22, 1933. In German. 1.50

5047-5049 PB L 70329 WETZSTEIN, BRUNO (Inventor). Friction apparatus for textile fibers, in which the textile material is ground between cylinders and friction surface. Ger. patent 323 379. Class 29a, group 7 dated Aug 25, 1918. In German. 1.50

5050-5052 PB L 70329 ELSTER, JOHANNES (Inventor). Feeding and applying device for rod-shaped working material, especially nettle stalks. Ger. patent 310 735. Class 29a, group 7 dated Jan 31, 1918. In German. 1.50
Supplement to patent No. 310 664.

5053-5055 PB L 70329 ELSTER, JOHANNES (Inventor). Purifying and separating device for fibers floating in a liquid. Ger. patent 315 947. Class 29a, group 7 dated Apr 21, 1918. In German. 1.50

5056-5058 PB L 70329 JACKSON, WILHELM (Inventor). Device for production of spinning fibers from a liquid flowing through a strainer. Ger. patent 315 994. Class 29a, group 7 dated May 3, 1918. In German. 1.50

5059-5061 PB L 70329 VENTER, OTTO (Inventor). Device for effecting the process for diverting stalks by sand blast. Ger. patent 316 606. Class 29a, group 7 dated Oct 8, 1918. In German. 1.50
Supplement to patent No. 315 594.

5062-5063 PB L 70329 FREISE, HEINRICH (Inventor). Process for production of wool-like spinning fibers by cutting fila stripes. Ger. patent 318 741. Class 29a, group 7 dated Dec 13, 1918. In German. 1.50

5064-5066 PB L 70329 FIRMA J. HEINRICH SPOERL, DÜSSELDORF. Process and device for subsequent treatment of nettle fibers, etc., after breaking the stalks. Ger. patent 319 445. Class 29a, group 7 dated Mar 7, 1918. In German. 1.50

5067-5069 PB L 70329 HAMMER, ARTHUR (Inventor). Process and device for separating fibers from solubilized fibrous plants by means of pressure water-jets. Ger. patent 319 869. Class 29a, group 7 dated Jul 24, 1918. In German. 1.50

5070-5071 PB L 70329 NESSEL-ANBAU-GESELLSCHAFT M.B.H., BERLIN. Process of separating bast fibers from components of wood bark, vegetable gum, etc. Ger. patent 328 170. Class 29a, group 7 dated Oct 26, 1918. In German. 1.50

5072-5074 PB L 70329 KÜCHENMEISTER, CARL WILHELM (Inventor). Process and device for boiling plants for textile fabrics. Ger. patent 304 607. Class 29a, group 7 dated Apr 21, 1916. In German. 1.50

5075-5077 PB L 70329 INDUSTRIE-VERWALTUNG AKT.-GES., BERLIN and B. V. POSSANNER, CÖTHEN I. ANH. Pressure boiler for solubilizing textile fibers. Ger. patent 385 078. Class 29a, group 7 dated Jul 31, 1921. In German. 1.50

5078-5080 PB L 70329 GENNARO, UBERTO (Inventor). Device for separating and feeding stalks for bast fibers processing machines. Ger. patent 607 820. Class 29a, group 7 dated Jul 22, 1933. In German. 1.50

5081 PB L 70329 TRIVER, TELESPHORE (Inventor). Innovations in the production of asbestos cloth. Ger. patent 19606. Class 29a, group 7 dated Mar 7, 1882. In German. 1.50

5082 PB L 70329 PÖSCHEL, PAUL (Inventor). Rinsing process during rolling of flax-, hemp-, straw or the like by means of water retting. Ger. patent 309 179. Class 29a, group 7 dated Nov 28, 1917. In German. 1.50

5083-5088 PB L 70329 ELSTER, JOHANNES (Inventor). Process and device for separating bark from stalks. Ger. patent 310 016. Class 29a, group 7 dated Mar 25, 1917. In German. Supplement to patent No. 307 143. 1.50

5089-5091 PB L 70329 GRÄTZER, HEINRICH (Inventor). Grinding machine (edge mill) for grinding and reducing fibers of animal sinews. Ger. patent 310 570. Class 29a, group 7 dated Oct 22, 1915. In German. 1.50

5092-5094 PB L 70329 NESSEL-ANBAU-GESELLSCHAFT M.B.H., BERLIN. Device for removing loosened vegetable fibers from stalks by spraying. Ger. patent 310 694. Class 29a, group 7 dated Oct 12, 1917. In German. 1.50

5095-5097 PB L 70329 ELSTER, JOHANNES (Inventor). Process and device for continuous purifying fibers on a conveyor belt. Ger. patent 314 887. Class 29a, group 7 dated Sep 14, 1918. In German. 1.50

5098-5100 PB L 70329 GMINDER, EMIL (Inventor). Process for production of spinning long-fibers from green hemp stalks, especially green seed hemp stalks. Ger. patent 676 433. Class 29a, group 7 dated Jun 10, 1938. In German. 1.50

5101-5103 PB L 70329 MALZ, ALBERT and BERNHARDT, HERBERT (Inventors). Process and device for stripping fibrous bast bands from hop stalks. Ger. patent 692 739. Class 29a, group 7 dated Jan 22, 1938. In German. 1.50

5104-5106 PB L 70329 ELSTER, JOHANNES (Inventor). Nippers-grab for a device for automatic feeding of bast fiber stalks. Ger. patent 699 375. Class 29a, group 7 dated May 4, 1939. In German. Supplement to patent No. 692 651. 1.50

5107-5110 PB L 70329 BINDLER, HUGO, FREITAL. Device for cutting hemp stalks. Ger. patent 704 089. Class 29a, group 7 dated Mar 3, 1939. Inventor: Jendrusch, Karl. In German. 1.50

5111-5114 PB L 70329 ELSTER, JOHANNES (Inventor). Boiling-drum for bast fiber stalks. Ger. patent 696 102. Class 29a, group 7 dated Jul 13, 1938. In German. 1.50

5115-5118 PB L 70329 MASCHINENBAU UND METALLTUCHFABRIK AKT.-GES. VORM. GOTTL. HEERBRANDT, RAGUHN. Device for separating fibers from pre-broken unroasted bast fiber stalks. Ger. patent 702 996. Class 29a, group 7 dated Dec 1, 1936. Inventor: Dittrich, Rudolf. In German. 1.50

5119-5121 PB L 70329 MASCHINENBAU UND METALLTUCHFABRIK AKT.-GES. VORM. GOTTL. HEERBRANDT, RAGUHN B. DESSAU. Device for separating fibers from pre-broken unroasted bast fiber stalks. Ger. patent 682 827. Class 29a, group 7 dated Nov 26, 1937. Inventor: Dittrich, Rudolf. In German. 1.50

5122-5124 PB L 70329 DITTRICH, RUDOLF (Inventor). Device for loosening up wet solubilized and dried flock bast from hemp, flax, etc. Ger. patent 714 751. Class 29a, group 7 dated Jul 7, 1940. In German. 1.50

5125-5127 PB L 70329 ETRICH, IGO (Inventor). Process and device for bound adjusting bast fiber stalks before mechanical processing. Ger. patent 637 627. Class 29a, group 7 dated May 4, 1935. In German. 1.50

5128-5130 PB L 70329 ELSTER, JOHANNES (Inventor). Device for purification and elimination of fibers floating in a liquid. Ger. patent 338 233. Class 29a, group 7 dated May 8, 1918. In German. Supplement to patent No. 315 947. 1.50

5131-5133 PB L 70329 NEUMANN, JOSEF (Inventor). Process and device for simultaneous production of textile fibers and utilisable broom stalks. Ger. patent 681 323. Class 29a, group 7 dated May 25, 1935. In German. 1.50

5134-5135 PB L 70329 SCHMIDT, LUDWIG (Inventor). Textile fiber. Ger. patent 308 524. Class 29a, group 7 dated Aug 16, 1916. In German. 1.50

5136-5138 PB L 70329 BEGER, GEORG and KROPP, KARL (Inventors). Machine for cutting knots for separating used cord. Ger. patent 245 719. Class 29a, group 7 dated Jan 12, 1911. In German. 1.50

5139-5141 PB L 70329 BLÜMLEIN, VICTOR (Inventor). Device for separating saffron. Ger. patent 89 064. Class 29a, group 7 dated Jun 8, 1895. In German. 1.50

5142-5144 PB L 70329 BLÜMLEIN, VICTOR (Inventor). Device for separating saffron. Ger. patent 96 698. Class 29a, group 7 dated Dec 22, 1896. In German. 1.50

5145-5147 PB L 70329 GMINDER, EMIL (Inventor). Revolving horizontal cottonizing drum. Ger. patent 676 432. Class 29a, group 7 dated Mar 27, 1938. In German. 1.50

5148-5151 PB L 70329 ELSTER, JOHANNES (Inventor). Device for degumming pre-boiled fibrous stalks, especially nettle and hemp stalks, by spraying. Ger. patent 680 948. Class 29a, group 7 dated Nov 14, 1937. In German. 1.50

5152-5154 PB L 70329 ULLERSDORFER FLACHSGARN-SPINNEREI HUGO VON LÖBBECKE, ULLERSDORF, KR. GLATZ. Flax rippling machine. Ger. patent 361 785. Class 29a, group 7 dated Dec 14, 1920. In German 1.50

5155-5157 PB L 70329 BONNIEC, CHARLES (Inventor). Flax rippling machine. Ger. patent 364 608. Class 29a, group 7 dated Dec 4, 1921. In German. 1.50

5158-5160 PB L 70329 ULLERSDORFER FLACHSGARN-SPINNEREI HUGO VON LÖBBECKE, ULLERSDORF, KR. GLATZ. Flax rippling machine. Ger. patent 364 458.

Class 29a, group 7 dated Jun 21, 1921. In German. 1.50
Supplement to patent No. 361 785.

5161-5163 PB L 70329 INDUSTRIE-VERWALTUNG AKT.-GES., BERLIN and B. V. POSSANNER, CÖTHEN, ANH. Device for separating fiber material solubilized in the individual single cells, by means of water. Ger. patent 367 048. Class 29a, group 7 dated Jul 31, 1921. In German. 1.50

5164-5166 PB L 70329 JIROTKA, BOHUMIL and KÜCHENMEISTER, HEINRICH (Inventors). Device for dehusking hop, broom, vines, etc., with circulating brushes or cloth discs. Ger. patent 334 567. Class 29a, group 7 dated Jun 2, 1918. In German. 1.50

5167-5169 PB L 70329 ELSTER, JOHANNES (Inventor). Process for freeing useful materials (especially fiber material) from additions by spraying. Ger. patent 339 884. Class 29a, group 7 dated Jun 24, 1919. In German. 1.50

5170-5172 PB L 70329 BAUMANN & LEDERER, MECHANISCHE SEGELTUCHWEBEREIEN UND ZELT-FABRIK, KASSEL. Device for freeing flax from joints. Ger. patent 342 152. Class 29a, group 7 dated Jan 23, 1921. In German. 1.50

5173-5175 PB L 70329 VAN MAERCKE, JOSEPH and VAN STEENKISTE, JOSEPH (Inventors). Rippling machine for freeing flax, hemp, etc., from joints. Ger. patent 342 224. Class 29a, group 7 dated Jun 15, 1920. In German. 1.50
Supplement to patent No 328 051.

5176-5178 PB L 70329 ELSTER, JOHANNES (Inventor). Process and device for equally sprinkled material, especially fiber material, fed by means of a conveyor band. Ger. patent 342 425. Class 29a, group 7 dated Jun 11, 1919. In German. 1.50

5179-5181 PB L 70329 JANSSEN, PETER (Inventor). Device for production of spinning fibers from wood. Ger. patent 638 452. Class 29a, group 7 dated Aug 5, 1934. In German. 1.50

5182-5185 PB L 70329 PFERDMENGES, HEINRICH (Inventor). Process and device for production of textile fibers from bast fiber stalks. Ger. patent 655 653. Class 29a, group 7 dated Mar 2, 1935. In German. 1.50

5186-5188 PB L 70329 FIBRE-PROCESSING LIMITED, WELLINGTON, NEW ZEALAND. Device for production of textile fibers from New Zealand flax leaves. Ger. patent 666 985. Class 29a, group 7 dated Jan 28, 1936. In German. 1.50

5189-5191 PB L 70329 HAYES-GRATZE, EUGENE VICTOR (Inventor). Machine for softening, smoothing and adjusting long-fibers. Ger. patent 665 879. Class 29a, group 7 dated Nov 7, 1936. In German. 1.50

5192-5193 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT, MAIN. Process for production of textile threads and fibers from organic thermoplastic substances. Ger. patent 667 234. Class 29a, group 7 dated Jul 1, 1936. Inventor: Jacqué, Heinrich. In German. 1.50

5194-5196 PB L 70329 PLATT BROTHERS and COMPANY LIMITED and others. Machine for the production of spinnable short-stapled leaf-fibers. Ger. patent 667 963. Class 29a, group 7 dated Feb 4, 1936. In German. 1.50

5197-5199 PB L 70329 JANSSEN, PETER (Inventor). Device for production of spinnable wood-fibers. Ger. patent 674 366. Class 29a, group 7 dated Jun 3, 1937. In German. 1.50

5200-5202 PB L 70329 HAMMER, HERTHA, GEB. MLETZKO. Device for production of spinning fibers from broom stalks, etc. Ger. patent 677 794. Class 29a, group 7 dated Jun 18, 1937. Inventor: Hammer, Arthur. In German. 1.50

5203-5205 PB L 70329 FRISCHE, KURT (Inventor). Process for production of spinnable fibers from fibrous bark bands. Ger. patent 665 282. Class 29a, group 7 dated Jul 16, 1936. In German.

5206-5207 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT, MAIN. Process for production of especially poor textile fibers from hop straws, flax straws, etc. Ger. patent 676 338. Class 29a, group 7 dated May 30, 1937. Inventor: Kränslein, Georg. In German. 1.50

5208-5213 PB L 70329 KORFF, MAX E. (Inventor). Installation for production of cottonised fibers. Ger. patent 679 724. Class 29a, group 7 dated Apr 28, 1935. In German. 1.50

5214-5216 PB L 70329 GMINDER, EMIL (Inventor). Process for production of spinning long-fibers from green hemp stalks, especially green seed hemp stalks. Ger. patent 676 434. Class 29a, group 7 dated Jun 10, 1938. In German. 1.50

5217-5220 PB L 70329 FABRIQUE DE SOIE ARTIFICIELLE D'OBOURG (SOCIETE ANONYME), OBOURG-LEZ-MONS and MAURICE DENIS, MONS, BELGIEN. Spinning nozzle carrier with several single stopping nozzles for machines producing artificial fibers from qualified solutions. Ger. patent 267 968. Class 29a, group 6 dated Dec 25, 1913. In German. 1.50

5221-5223 PB L 70329 GOCHER OELMUEHLE, GEBR. VAN DEN BOSCH. GOCH. RHLD. Device for production of fibers, films and similar products from solutions. Ger. patent 186 203. Class 29a, group 6 dated Aug 13, 1905. In German. 1.50

5224-5227 PB L 70329 FELDMUEHLE A.-G. VORM. LOEB, SCHOENFELD & CO., RORSCHACH, RORSCHACH-SCHWEIZ. Device for reception of freshly spun rayon threads. Ger. patent 617 791. Class 29a.

group 6 dated Nov 22, 1932. In German. 1.50

5228-5229 PB L 70329 BARMER MASCHINENFABRIK AG, WUPPERTAL-OBERBARMEN. Process for production of fine rayon threads. Ger. patent 743 396. Class 29a, group 6 dated Jun 8, 1939. Inventor: Bochmann, Otto. In German. 1.50

5230-5232 PB L 70329 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Spinning can type spinning frame. Ger. patent 457 284. Class 29a, group 6 dated Nov 14, 1924. Inventor: Bunzl-Gečmen, Franz. In German. 1.50

5233-5235 PB L 70329 GLANZFAEDEN-AKT.-GES., PETERSDORF, RSGEB. Mounting of spinning can. Ger. patent 457 689. Class 29a, group 6 dated Jun 29, 1924. In German. 1.50
Supplement to patent No. 456 616.

5236-5238 PB L 70329 FR. KUETTNER, PIRNA, ELBE. Arrangement of spinning can for rayon spinning. Ger. patent 458 047. Class 29a, group 6 dated May 5, 1926. Inventor: Wagner, Albert. In German. 1.50

5239-5241 PB L 70329 J. P. BEMBERG AKT.-GES., WUPPERTAL-OBERBARMEN. Washing machine for spinning cake. Ger. patent 531 825. Class 29a, group 6 dated Aug 6, 1929. In German. 1.50

5242-5243 PB L 70329 HOELKENSEIDE G.M.B.H., BARMEN. Process of removing thickenings or knots which are formed during the stretch spinning process of rayon production due to breaking capillary fibers. Ger. patent 458 270. Class 29a, group 6 dated Oct 27, 1926. In German. 1.50
Supplement to patent No. 397 857.

5244-5246 PB L 70329 SOCIÉTÉ FRANÇAISE DE LA VISCOSE, PARIS. Yarnwinder for rayon. Ger. patent 168 171. Class 29a, group 6 dated Aug 10, 1904. In German. 1.50

5247-5249 PB L 70329 SOCIÉTÉ FRANÇAISE DE LA VISCOSE, PARIS. Cock for regulating the inflowing viscose material into the spinning nozzles. Ger. patent 163 467. Class 29a, group 6 dated Aug 9, 1904. In German. 1.50

5250-5252 PB L 70329 SOCIÉTÉ FRANÇAISE DE LA VISCOSE, PARIS. Revolving spinning nozzle for rayon. Ger. patent 164 321. Class 29a, group 6 dated Aug 6, 1904. In German. 1.50

5253-5255 PB L 70329 SOCIÉTÉ FRANÇAISE DE LA VISCOSE, PARIS. Equipment to disengage the spinning pots, for viscose spinning machines. Ger. patent 160 244. Class 29a, group 6 dated Aug 12, 1904. In German. 1.50

5256-5259 PB L 70329 THIELE, EDMUND (Inventor). Methods and device for collecting and re-processing rayon. Ger. patent 133 427. Class 29a, group 6 dated Mar 22, 1901. In German. 1.50

5260-5262 PB L 70329 TOPHAM, CHARLES FRED (Inventor). Device for producing (artificial) synthetic threads from cellulose solutions, etc. Ger. patent 125 947. Class 29a, group 6 dated Dec 22, 1900. In German. 1.50

5263-5265 PB L 70329 GRANQUIST, CARL ARVID (Inventor). Equipment for producing rayon. Ger. patent 111 333. Class 29a, group 6 dated Jan 5, 1899. In German. 1.50

5266-5269 PB L 70329 DRYEN, ACHILLE (Inventor). Pump with controlled distributor for spinning cellulose solutions. Ger. patent 324 027. Class 29a, group 6 dated Aug 24, 1916. In German. 1.50

5270-5272 PB L 70329 SOCIÉTÉ ANONYME DES CELLULOSES PLANCHON, LYON, FRANKR. Spool exchange equipment for machines which spin synthetic threads. Ger. patent 321 493. Class 29a, group 6 dated May 2, 1914. In German. 1.50

5273-5275 PB L 70329 KOELN-ROTTWEIL AKT.-GES., BERLIN. Spinning nozzle for synthetic thread from cellulose solutions, with drilled holes distributed over the entire surface of the nozzle. Ger. patent 321 344. Class 29a, group 6 dated Aug 6, 1919. In German. 1.50
Supplement to patent No. 319 444.

5276-5279 PB L 70329 COURTAULDS LIMITED and CLAYTON, JAMES (Inventors). Thread-guide for machines to produce rayon. Ger. patent 321 216. Class 29a, group 6 dated Apr 15, 1916. In German. 1.50

5280-5282 PB L 70329 KOELN-ROTTWEIL AKT.-GES., BERLIN. Spinning nozzle for synthetic threads from cellulose solutions. Ger. patent 319 444. Class 29a, group 6 dated Apr 26, 1919. In German. 1.50

5283-5285 PB L 70329 KOELN-ROTTWEIL AKT.-GES., BERLIN. Spinning nozzle for synthetic threads. Ger. patent 319 443. Class 29a, group 6 dated Jul 15, 1919. In German. 1.50

5286-5289 PB L 70329 BARMER MASCHINENFABRIK A.G., WUPPERTAL-OBERBARMEN. Spinning machine with bobbins and device for aftertreating them. Ger. patent 565 758. Class 29a, group 6 dated Jun 14, 1930. In German. 1.50
Supplement to patent No. 565 757.

5290-5293 PB L 70329 SONDERMANN & CO., GUMMERSBACH, RHLD. Process for producing and aftertreating rayon threads spun according to the bobbin- or reel system. Ger. patent 566 018. Class 29a, group 6 dated Mar 6, 1928. In German. 1.50

5294-5296 PB L 70329 KOHORN, OSCAR, & CO., MASCHINENFABRIK and ALFRED LEHNER, CHEMNITZ. Device for continuously spinning, aftertreating and especially drying rayon. Ger. patent 557 462. Class 29a, group 6 dated Jan 28, 1931. Inventor: Landolt, Charles. In German. 1.50

5297-5301 PB L 70329 — ALGEMEENE KUNSTZIJDE UNIE N. V., ARNHEM, HOLLAND. Device for washing and aftertreating rayon cakes according to the pressure washing process. Ger. patent 558 495. Class 29a, group 6 dated Jul 1, 1930. In German. 1.50

5302-5304 PB L 70329 — VEREINIGTE GLANZSTOFF-FABRIKEN A.G., WUPPERTAL-ELBERFELD. Process for washing and aftertreating rayon cakes. Ger. patent 560 145. Class 29a, group 6 dated Nov 29, 1930. In German. 1.50

5305 PB L 70329 — FESSMANN, LOUIS (Inventor). Methods for production of synthetic cotton by means of the synthetic silk process. Ger. patent 319 079. Class 29a, group 6 dated Sep 5, 1918. In German. 1.50

5306-5308 PB L 70329 — VEREINIGTE GLANZSTOFF-FABRIKEN A.-G., ELBERFELD. Device for producing threads and tapes from cellulose solutions. Ger. patent 460 042. Class 29a, group 6 dated Jun 23, 1926. In German. 1.50

5309-5312 PB L 70329 — RUSHTON, JAMES LEVER (Inventor). Driving arrangement for switching off the individual spinning pot transmissions of rayon spinning machines. Ger. patent 460 443. Class 29a, group 6 dated Oct 3, 1925. In German. 1.50

5313-5316 PB L 70329 — BARMER MASCHINENFABRIK A.G., WUPPERTAL-OBERBARMEN. Spinning machine with bobbins and device for aftertreating them. Ger. patent 565 757. Class 29a, group 6 dated May 28, 1930. In German. 1.50

5317-5319 PB L 70329 — GLANZSTOFF-COURTAULDS G.M.B.H., KOELN-MERHEIM (LINKSRHEIN). Method and aftertreatment of rayon spun on perforated or porous bobbins. Ger. patent 560 619. Class 29a, group 6 dated Aug 5, 1931. In German. 1.50

5320-5322 PB L 70329 — ALGEMEENE KUNSTZIJDE UNIE N.V., ARNHEM, HOLLAND. Device for washing and aftertreating rayon cakes according to the suction or pressure process. Ger. patent 562 326. Class 29a, group 6 dated Nov 28, 1929. In German. 1.50
Supplement to patent No. 554 588.

5323-5328 PB L 70329 — DOBSON & BARLOW LIMITED, BOLTON, LANCASTER, ENGLAND. Machine for washing and aftertreating, especially rayon hanks. Ger. patent 494 535. Class 29a, group 6 dated Dec 4, 1928. In German. 1.50

5329-5332 PB L 70329 — GRUNERT, KURT (Inventor). Process and device for aftertreating rayon cakes. Ger. patent 555 977. Class 29a, group 6 dated Apr 27, 1930. In German. 1.50

5333-5334 PB L 70329 — VISKOSE A.-G. and CARL BECKER, ARNSTADT I. THUER. Process for regulating tension of viscose rayon threads spun on bobbins or rolls. Ger. patent 436 851. Class 29a, group 6 dated Mar 19, 1925. In German. 1.50

5335-5336 PB L 70329 — SENFTLEBEN, ARTUS (Inventor). Device for elastically attaching the spinning can to the spindle. Ger. patent 438 201. Class 29a, group 6 dated Feb 3, 1925. In German. 1.50

5337-5338 PB L 70329 — KUETTNER, FR. and others (Inventors). Bobbin drive for rayon spinning machines. Ger. patent 417 941. Class 29a, group 6 dated Mar 25, 1924. In German. 1.50

5339-5340 PB L 70329 — SIEMENS-SCHUCKERTWERKE G.M.B.H., BERLIN-SIEMENSSTADT. Cover for spinning cans. Ger. patent 454 040. Class 29a, group 6 dated May 30, 1926. Inventor: Bunzl-Gecmen, Franz. In German. 1.50

5341-5342 PB L 70329 — BEMBERG, J. P., A.-G., BARMEN-RITTERSHAUSEN. Device for spinning rayon according to the stretch spinning process with streaming precipitating liquid. Ger. patent 420 516. Class 29a, group 6 dated Aug 20, 1924. In German. 1.50
Supplement to patent No. 418 522.

5343-5345 PB L 70329 — DUESSELDORF-RATINGER MASCHINEN- U.APPARATEBAU-A.G. and EDUARD WURTZ, RATINGEN. Spinning centrifuge. Ger. patent 400 931. Class 29a, group 6 dated Apr 26, 1923. In German. 1.50

5346-5347 PB L 70329 — FARBENFABRIKEN VORM. FRIEDR. BAYER & CO., LEVERKUSEN B. KOELN/RH. Device for stretch spinning. Ger. patent 417 988. Class 29a, group 6 dated May 15, 1924. Inventors: Hubert, Emil and Leuchs, Otto. In German. 1.50

5348-5350 PB L 70329 — LINKMEYER, CARL RUDOLF (Inventor). Continuously operating apparatus for producing artificial fibers. Ger. patent 415 479. Class 29a, group 6 dated Oct 25, 1923. In German. 1.50

5351-5352 PB L 70329 — BEMBERG, J. P., A.-G., BARMEN-RITTERSHAUSEN. Device for spinning rayon according to the stretch spinning process. Ger. patent 415 798. Class 29a, group 6 dated Nov 18, 1923. In German. 1.50
Supplement to patent No. 413 790.

5353-5355 PB L 70329 — HUPPERMANN, WILHELM (Inventor). Device for detaching freshly spun artificial fiber from the delivery roller. Ger. patent 696 104. Class 29a, group 6 dated Oct 1, 1936. In German. 1.50

5356 PB L 70329 — FARBENFABRIKEN VORM. FRIEDR. BAYER & CO., LEVERKUSEN B. KOELN A. RH. Process for preparing the spinning machine for spinning rayon. Ger. patent 423 284. Class 29a, group 6, dated Jun 19, 1924. Inventors: Leuchs, Otto and Hubert, Emil. In German. 1.50

5357-5358 PB L 70329 — KUETTNER, FR. and others (Inventors). Bobbin carrier for bobbins used for artificial fibers. Ger. patent 421 342. Class 29a, group 6 dated Nov 27, 1924. In German. 1.50

5359-5361 PB L 70329 BEMBERG, J. P., A.-G., BARMEN-RITTERSHAUSEN. Apparatus for spinning rayon. Ger. patent 421 426. Class 29a, group 6 dated Dec 8, 1923. In German. 1.50

5362-5363 PB L 70329 BEMBERG, J. P., A.-G., BARMEN-RITTERSHAUSEN. Spinning apparatus for producing artificial fibers. Ger. patent 421 743. Class 29a, group 6 dated Feb 19, 1924. In German. 1.50

5364-5366 PB L 70329 METALLHUETTE BAER & CO., RASTATT, BADEN. Spinning can for rayon spinning machines. Ger. patent 422 122. Class 29a, group 6 dated Jul 24, 1924. In German. 1.50

5367-5370 PB L 70329 SCHROEDER, RICHARD (Inventor). Driving arrangement for thread-guides of rayon spinning machines. Ger. patent 422 401. Class 29a, group 6 dated Jun 28, 1924. In German. 1.50

5371-5372 PB L 70329 FARBENFABRIKEN VORM. FRIEDR. BAYER & CO., LEVERKUSEN B. KOELN A. RH. Device for producing rayon according to the stretch spinning process with circulating precipitating liquid. Ger. patent 423 139. Class 29a, group 6 dated Jun 22, 1924. Inventors: Leuchs, Otto and Hubert, Emil. In German. 1.50

5373-5375 PB L 70329 BRYSILKA LIMITED, APPERLEY BRIDGE B. BRADFORD, YORK, ENGLAND. Device for attaching the precipitating cylinder to the perforated disc. Ger. patent 451 005. Class 29a, group 6 dated May 22, 1926. In German. 1.50

5376-5378 PB L 70329 HOELKENSEIDE G.M.B.H., BARMEN-R. Apparatus for regulating the feeding of the precipitating liquid to the spinning funnel for machines spinning viscose liquids especially cuprammonium-cellulose solution. Ger. patent 421 339. Class 29a, group 6 dated Mar 7, 1922. In German. 1.50

5379-5380 PB L 70329 SIEMENS-SCHUCKERTWERKE G.M.B.H., BERLIN-SIEMENSSTADT. Spinning can with single drive motor. Ger. patent 444 209. Class 29a, group 6 dated Nov 12, 1924. Inventor: Bunzl-Gecmen, Franz. In German. 1.50

5381-5382 PB L 70329 HAUBOLD, C.G., A.-G., CHEMNITZ I. SA. Top-spinning machine for rayon. Ger. patent 421 340. Class 29a, group 6 dated Aug 31, 1924. In German. 1.50

5383-5384 PB L 70329 HANEL, CARL, AKT.-GES., SCHOENAU B. CHEMNITZ. Thread-guide driving arrangement for rayon spinning machines. Ger. patent 421 341. Class 29a, group 6 dated Dec 11, 1924. In German. 1.50

5385-5386 PB L 70329 ACTIEN-GESELLSCHAFT FUER ANILIN-FABRIKATION, BERLIN-TREPTOW. Screwed joint for attaching spinnerets for artificial fibers. Ger. patent 390 742. Class 29a, group 6 dated Dec 17, 1922. Inventor: Hohmann, Wilhelm. In German. 1.50

5387-5390 PB L 70329 SCHULZ, WILLY (Inventor). Continuously operating apparatus for treating threads, especially rayon threads. Ger. patent 420 350. Class 29a, group 6 dated Oct 23, 1924. In German. 1.50

5391-5392 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.G., ELBERFELD. Pinchers for rayon spinning bobbins. Ger. patent 418 523. Class 29a, group 6 dated Aug 23, 1924. In German. 1.50

5393-5395 PB L 70329 BEMBERG, J. P., A.-G., BARMEN-RITTERSHAUSEN. Apparatus for spinning rayon according to the stretch spinning process with streaming precipitating liquid. Ger. patent 418 522. Class 29a, group 6 dated May 31, 1924. In German. 1.50

5396-5398 PB L 70329 SIEMENS-SCHUCKERTWERKE G.M.B.H., BERLIN-SIEMENSSTADT. Apparatus for exchanging electric motors, especially for driving spinning centrifuges. Ger. patent 443 446. Class 29a, group 6 dated May 11, 1924. Inventor: Jaehnert, Otto. In German. 1.50

5399-5400 PB L 70329 BEMBERG, J. P., A.G., BARMEN-RIBBERSHAUSEN. Thread-guide for devices for spinning rayon threads. Ger. patent 444 530. Class 29a, group 6 dated Feb 27, 1925. In German. 1.50
Supplement to patent No 437 641.

5401-5402 PB L 70329 SCHULZ, WANDA (Inventor). Process of winding rayon threads. Ger. patent 444 437. Class 29a, group 6 dated Mar 18, 1925. In German. 1.50

5403-5405 PB L 70329 RUSHTON, JAMES LEVER (Inventor). Thread-guide for spinning cans of rayon spinning machines. Ger. patent 444 137. Class 29a, group 6 dated Oct 3, 1925. In German. 1.50

5406-5409 PB L 70329 KOHORN, OSCAR & CO., and ALFRED LEHNER, CHEMNITZ. Spinning machine for rayon. Ger. patent 440 004. Class 29a, group 6 dated Jul 18, 1924. In German. 1.50
Supplement to patent No. 436 667.

5410-5411 PB L 70329 SIEGHEIM, FRITZ (Inventor). Thread-guide for spinning can type spinning machines. Ger. patent 443 415. Class 29a, group 6 dated Jul 3, 1926. In German. 1.50

5412-5416 PB L 70329 SOCIÉTÉ POUR LA FABRICATION DE LA SOIE "RHODIASETA", PARIS. Method of producing artificial fibers of cellulose derivatives according to the dry-spinning process. Ger. patent 443 414. Class 29a, group 6, dated Jan 13, 1926. In German. 1.50

5417-5418 PB L 70329 HERMINGHAUS & CO., G.M.B.H., VOHWINKEL. Bilateral spinning machine for rayon. Ger. patent 449 170. Class 29a, group 6 dated Feb 14, 1925. In German. 1.50

5419-5420 PB L 70329 HAUBOLD, C. G., A.G., CHEMNITZ. Spinning machine for artificial wool, staple fiber or artificial "schappe." Ger. patent

450 565. Class 29a, group 6 dated Jul 30, 1926. In German. 1,50

5421-5423 PB L 70329 DEUTSCHE ZELLSTOFF-TEXTILWERKE G.M.B.H., ELBERFELD. Process for producing hollow artificial fibers, etc. Ger. patent 450 924. Class 29a, group 6 dated Dec 18, 1926. Inventor: Stein, Alfred. In German. 1.50

5424-5426 PB L 70329 SPINNSTOFFFABRIK ZEHLENDORF G.M.B.H., BERLIN-LICHTERFELDE. Apparatus for continuously producing artificial fibers with reels. Ger. patent 448 437. Class 29a, group 6 dated Jan 26, 1926. In German. 1.50

5427-5428 PB L 70329 SCHULZ, WANDA (Inventor). Nozzle for producing artificial fibers according to the stretch spinning process. Ger. patent 447 208. Class 29a, group 6 dated Apr 7, 1925. In German. 1.50

5429 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A.M. Process for producing rayon, artificial fibers, small ribbons, horsehair or the like. Ger. patent 452 697. Class 29a, group 6 dated Nov 24, 1922. In German. 1.5

5430-5432 PB L 70329 DUESSELDORF-RATINGER MASCHINEN- U. APPARATEBAU-A.-G. UND E. WURTZ, RATLINGEN. Spinning can spinning machine. Ger. patent 453 690. Class 29a, group 6 dated Jun 13, 1926. In German. 1.50

5433-5436 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.G., WUPPERTAL-ELBERFELD. Apparatus for separating a bundle of endless artificial fibers into staple cuts. Ger. patent 711 149. Class 29a, group 6 dated Mar 10, 1936. In German. 1.50

5437-5439 PB L 70329 BRYSILKA LIMITED, APPERLEY BRIDGE B. BRADFORD, ENGLAND. Apparatus for working rayon spinning solutions especially for cuprammonium rayon. Ger. patent 453 772. Class 29a, group 6 dated Jun 25, 1926. In German. 1.50

5440-5443 PB L 70329 RUSHTON, JAMES LEVER (Inventor). Process and apparatus for conveying an artificial thread during its production. Ger. patent 445 791. Class 29a, group 6 dated Jan 6, 1926. In German. 1.50

5444-5446 PB L 70329 THUERINGISCHE ZELLWOLLE AG, SCHWARZA, SAALE. Apparatus for spinning artificial fibers of viscose solutions according to the stretch spinning process. Ger. patent 716 633. Class 29a, group 6 dated Apr 27, 1937. Inventor: Schmidt, Hans-Joachim. In German. 1.50

5447-5448A PB L 70329 HAMEL, CARL, AKT.-GES., SIEGMAR- SCHOENAU. Device for effecting the process for producing and aftertreating endless artificial fiber strands in continuously working process. Ger. patent 699 043. Class 29a, group 6 dated Apr 11, 1937. Inventor: Hamel, Almund. In German. 1.50
Supplement to patent No. 666 744.

5449-5451 PB L 70329 HARTOGS, JACQUES COENRAAD (Inventor). Process and device for spinning rayon, staple fiber, films, etc., of cellulose solutions. Ger. patent 391 291. Class 29a, group 6 dated Jun 25, 1922. In German. 1.50

5452-5454 PB L 70329 DREAPER, WILLIAM PORTER (Inventor). Device for producing artificial fibers. Ger. patent 394 429. Class 29a, group 6 dated Dec 9, 1921. In German. 1.50

5455-5457 PB L 70329 MASCHINENFABRIK FRIEDRICH HAAS KOM.-GES., REMSCHEID-LENNEP. Conveyor for endless cellulose tracks, especially for producing viscose spinning solution in the ripening room. Ger. patent 699 421. Class 29a, group 6 dated Mar 18, 1937. In German. 1.50

5458-5460 PB L 70329 METALLHUETTE BAER & CO., KOMM.-GES., RASTATT I. B. Tunnel-shaped bobbin carrier in one piece for the production of rayon. Ger. patent 398 345. Class 29a, group 6 dated Jun 16, 1923. In German. 1.50

5461-5462 PB L 70329 SCHROEDER, RICHARD (Inventor). Process of eliminating small rayon knots. Ger. patent 397 857. Class 29a, group 6 dated Jul 5, 1921. In German. 1.50

5463-5465 PB L 70329 DUESSELDORF-RATINGER MASCHINEN- UND APPARATEBAU AKT.-GES., UND ED. WURTZ, RATINGEN. Rayon spinning machine. Ger. patent 397 741. Class 29a, group 6 dated Dec 24, 1921. In German. 1.50

5466-5467 PB L 70329 DEUTSCHE GASGLUEHLICHT-AUER-GES. M.B.H., BERLIN and ALFRED LEHNER, THERESIENTHAL B. ARNAU, BOEHMEN. Bobbin for rayon spinning machines. Ger. patent 396 306. Class 29a, group 6 dated Dec 9, 1920. In German. 1.50
Supplement to patent No. 379 770.

5468-5469 PB L 70329 DEUTSCHE GASGLUEHLICHT-AUER-GES.M.B.H., BERLIN. Machine for producing rayon threads. Ger. patent 395 953. Class 29a, group 6 dated May 8, 1921. In German. 1.50

5470-5472 PB L 70329 SCHROEDER, RICHARD (Inventor). Spinning sprayer. Ger. patent 395 524. Class 29a, group 6 dated Nov 2, 1922. In German. 1.50

5473-5477 PB L 70329 DEBIS, MAURICE (Inventor). Device for spinning artificial silk under absolute or partial vacuum. Ger. patent 277 154. Class 29a, group 6 dated May 28, 1913. In German. 1.50

5478-5482 PB L 70329 PARCOFIL A.-G., NIEDER USTER, SCHWEIZ. Bobbin spinning machine with a 180° swinging bobbin carrier, constant thread run and unvariable lift. Ger. patent 549 988. Class 29a, group 6 dated Dec 28, 1929. In German. 1.50

5483-5485 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.G., WUPPERTAL-ELBERFELD. Device for reeling freshly spun wet rayon. Ger. patent 614 408. Class 29a, group 6 dated Jan 25, 1933. In German. 1.50

5486-5489 PB L 70329 ALGEMEENE KUNSTZIJDE UNIE N.V., ARNHEIM, HOLLAND. Ball of freshly spun rayon. Ger. patent 586 186. Class 29a, group 6 dated Mar 1, 1932. In German. 1.50

5490-5493 PB L 70329 BAZZOCCHI, ALDO (Inventor). Rayon bobbin with adjustable circumference. Ger. patent 623 609. Class 29a, group 6 dated Jan 11, 1933. In German. 1.50

5494-5496 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A. MAIN. Spinneret for dry spinning of rayon. Ger. patent 528 917. Class 29a, group 6 dated Jun 14, 1929. Inventors: Herzog and Kämpf. In German. 1.50

5497-5499 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.G., WUPPERTAL-ELBERFELD. Solving device and mixer for rayon spinning solutions. Ger. patent 627 969. Class 29a, group 6 dated Oct 20, 1933. In German. 1.50

5500-5502 PB L 70329 COMPTOIR DES TEXTILES ARTIFICIELS SOCIÉTÉ ANONYME, PARIS. Process for producing effect threads from rayon. Ger. patent 625 782. Class 29a, group 6 dated Mar 30, 1933. In German. 1.50

5503-5505 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.-G., WUPPERTAL-ELBERFELD. Spinning can for rayon. Ger. patent 627 812. Class 29a, group 6 dated Mar 4, 1934. In German. 1.50

5506-5508 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.G., WUPPERTAL-ELBERFELD. Process for producing rayon cakes. Ger. patent 627 015. Class 29a, group 6 dated Dec 22, 1931. In German. 1.50

5509-5511 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.-G., WUPPERTAL-ELBERFELD. Spinning arrangement on bobbin spinning frames for rayon. Ger. patent 627 214. Class 29a, group 6 dated Oct 20, 1932. In German. 1.50

5512-5515 PB L 70329 HAMEL, CARL, SPINN-U. ZWIRNEREI-MASCHINEN-AKT.-GES., ARBON, SCHWEIZ and EDMUND HAMEL, SCHÖNAU B. CHEMNITZ. Process and device for guiding and placing artificial threads on bobbins of rayon spinning frames. Ger. patent 614 441. Class 29a, group 6 dated Oct 27, 1931. In German. 1.50

5516-5517 PB L 70329 COURTAULDS LIMITED, LONDON. Process for producing viscose silk in packs of equal affinity for colors. Ger. patent 457 961. Class 29a, group 6 dated May 20, 1926. In German. 1.50

5518-5523 PB L 70329 CANNSTATTER MISCH- & KNETMASCHINEN-FABRIK CANNSTATTER DAMPF-BACKOFEN-FABRIK WERNER & PFLEIDERER, CANNSTATT. Automatic reversing gear for fine fibering used by the rayon industry. Ger. patent 525 858. Class 29a, group 6 dated Mar 9, 1927. In German. 1.50

5524-5526 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A. MAIN. Wet spinning method for production of synthetic fabric materials like rayon. Ger. patent 526 264. Class 29a, group 6 dated Dec 30, 1928. Inventors: Meyer and Pfannenstiel. In German. 1.50

5527-5529 PB L 70329 GELLRICH, FRITZ (Inventor). Spinning can or spinning can cage for production of a finished thread-hank from rayon. Ger. patent 525 114. Class 29a, group 6 dated Sep 20, 1929. In German. 1.50

5530-5532 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A. MAIN. Device for the stretch spinning process of viscose rayon filament. Ger. patent 523 532. Class 29a, group 6 dated Apr 18, 1929. Inventors: Pfannenstiel and Mahn. In German. 1.50

5533-5535 PB L 70329 COLOMB, HENRI (Inventor). Multiple spinning head for spinning rayon. Ger. patent 522 594. Class 29a, group 6 dated Nov 17, 1928. In German. 1.50

5536-5538 PB L 70329 BALSCHKE, EMIL (Inventor). Device for moving the yarn carriers during the wet treatment of strand-yarn, especially for synthetic silks. Ger. patent 522 593. Class 29a, group 6 dated Nov 5, 1929. In German. 1.50

5539-5541 PB L 70329 AUERBACH, RUDOLF and STEINHORST, WILHELM (Inventors). Centrifugal pump for mixing air and spinnable fluid to produce artificial tubular threads. Ger. patent 522 592. Class 29a, group 6 dated Jul 25, 1928. In German. 1.50

5542-5544 PB L 70329 HÖLKENSEIDE G.M.B.H., WUPPERTAL-OBERBARMEN. Methods for spinning rayon. Ger. patent 522 469. Class 29a, group 6 dated Nov 17, 1928. In German. 1.50

5545-5547 PB L 70329 I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A. MAIN. Method of producing synthetic filament, based on the dry spinning wet stretching process. Ger. patent 522 368. Class 29a, group 6 dated May 1, 1929. Inventor: Kämpf, Adolf. In German. 1.50

5548-5551 PB L 70329 STECKBORN- KUNSTSEIDE A.-G., STECKBORN, SCHWEIZ. Device for producing rayon thread of high wet stability. Ger. patent 521 650. Class 29a, group 6 dated Oct 24, 1929. In German. 1.50

5552-5554 PB L 70329 FIRMA SCIENTIFIL, PARIS. Mechanism for spinning rayon with a spindle drive device, operating by friction. Ger. patent 521 566. Class 29a,

group 6 dated Jul 31, 1928. In German. 1.50

5555-5557 PB L 70329 SIEMENS-SCHUCKERTWERKE AKT.-GES., BERLIN-SIEMENSSTADT. Spinning pot, especially for rayon. Ger. patent 622 946. Class 29a, group 6 dated Apr 30, 1933. In German. 1.50
Supplement to patent 598 378.

5558-5560 PB L 70329 KLAVIK, MILOS (Inventor). Device for producing rayon threads, by means of the pot spinning process. Ger. patent 520 926. Class 29a, group 6 dated Sep 29, 1925. In German. 1.50

5561-5564 PB L 70329 LÖWE, BERNARD (Inventor). Method and device for spinning rayon and for covering natural silk and textile fibers in general, exposing the thread to air. Ger. patent 234 927. Class 29a, group 6 dated Oct 10, 1908. In German. 1.50

5565-5568 PB L 70329 BEMBERG, J. P., AKT.-GES., BARMEN-RITTERSHAUSEN. Mechanism for spinning viscose fluids by applying mobile fluids, for promoting thread passage. Ger. patent 220 051. Class 29a, group 6 dated May 16, 1907. In German. 1.50

5569-5571 PB L 70329 LÖWE, BERNARD (Inventor). Device for spinning rayon and for covering natural silk and textile fibers in general, exposing the thread to the air. Ger. patent 235 602. Class 29a, group 6 dated Oct 10, 1908. In German. 1.50
Supplement to patent 234 927, Oct 10, 1908.

5572-5574 PB L 70329 RHEINISCHE KUNSTSEIDE-FABRIK AKT.-GES., CÖLN. A. RHEIN. Machine for winding off rayon threads from stable spindles. Ger. patent 218 586. Class 29a, group 6 dated Jul 15, 1908. In German. 1.50

5575-5577 PB L 70329 REENTS, WILHELM and ZILFELD, FRIEDRICH (Inventors). Nozzle for producing rayon threads with inside enlarged cone shaped openings on the lower end, permitting the outlet of the rayon threads. Ger. patent 221 572. Class 29a, group 6 dated Jun 30, 1909. In German. 1.50

5578-5581 PB L 70329 ALLGEMEINE ELEKTRICITÄTS-GESELLSCHAFT, BERLIN. Clutch for fast running vertical motors especially for driving cans, twisting spindles, centrifuges or similar fast running machine parts. Ger. patent 622 699. Class 29a, group 6 dated Dec 1, 1929. Inventor: Teichmann. In German. 1.50

5582-5583 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.-G., WUPPERTAL-ELBERFELD. Elastic bobbin for aftertreatment of rayon. Ger. patent 569 881. Class 29a, group 6 dated Nov 1, 1930. Inventor: Rathert. In German. 1.50

5584-5585 PB L 70329 ALGEMEENE KUNSTZIJDE UNIE N.V., ARNHEM, HOLLAND. Spinning can from aluminum. Ger. patent 615 760. Class 29a, group 6 dated Jan 24, 1932. In German. 1.50
Supplement to patent 494 952.

5586-5588 PB L 70329 KURMARKISCHE ZELLWOLLE UND ZELLULOSE AG, WITTENBERGE, Bz. POTSDAM and other firms. Device for producing artificial fibers of high strength. Ger. patent 742 816. Class 29a, group 6 dated May 26, 1940. Inventors: Stuhlmann and Goldberg. In German. 1.50

5589-5591 PB L 70329 MILLAR, ADAM (Inventor). Process for producing long threads from silkworms. Ger. patent 93 795. Class 29a, group 6 dated Feb 24, 1897. In German. 1.50

5592-5595 PB L 70329 SCHWARZKOPF, OTTO and ALBRECHT, ALEXANDER (Inventors). Device for wet treatment of roving tops. Ger. patent 570 074. Class 29a, group 6 dated Aug 23, 1931. In German. 1.50

5596-5598 PB L 70329 ACETA G.M.B.H., BERLIN-LICHTENBERG. Cylindrical dry spinning cell. Ger. patent 486 717. Class 29a, group 6 dated Mar 30, 1928. In German. 1.50

5599-5601 PB L 70329 RUTHALDO COMPANY, INC., NEW YORK. Device for dry spinning of rayon threads. Ger. patent 486 718. Class 29a, group 6 dated Feb 22, 1928. In German. 1.50

5602-5604 PB L 70329 HAMEL, CARL, AKT.-GES., SCHOENAU BEI CHEMNITZ. Bobbin holder for rayon spinning frames. Ger. patent 486 780. Class 29a, group 6 dated Apr 18, 1928. In German. 1.50

5605-5607 PB L 70329 SCHUELKE, ERICH (Inventor). Filter for cellulose solutions, arranged before the spinneret. Ger. patent 329 975. Class 29a, group 6 dated Apr 11, 1920. In German. 1.50

5608-5610 PB L 70329 LAUFFS, A. (Inventor). Process for producing wool-like artificial fibers, so-called staple fibers. Ger. patent 333 174. Class 29a, group 6 dated Nov 26, 1918. In German. 1.50

5611-5612 PB L 70329 SCHUELKE, E. (Inventor). Process for producing wool-like yarn from artificial fibers. Ger. patent 342 223. Class 29a, group 6 dated Aug 1, 1920. In German. 1.50

5613 PB L 70329 LOEWE, BERNARD (Inventor). Methods for spinning rayon and for covering natural silk and textile fibers in general, exposing the thread to the air. Ger. patent 238 160. Class 29a, group 6 dated Jan 21, 1909. In German. 1.50
Supplement to patent 235 602.

5614-5617 PB L 70329 COURTTAULD, SAMUEL, & CO., LTD., LONDON. Device for production of rayon and similar threads with tubular spindle carrying a spinning nozzle, driven and placed between its bearings. Ger. patent 236 242. Class 29a, group 6 dated Jun 8, 1909. In German. 1.50

5618-5620 PB L 70329 ROBATEL, T., BUFFAUD, J., & CIE, LYON, FRANKR. Method and device for processing yarn from fluids, by which the yarn compound is fixed to a carrier. Ger. patent 240 808. Class 29a, group 6 dated May 11, 1910. In German. 1.50

5621-5625 PB L 70329 SORDELLI, STEFANO (Inventor). Conical reel for stretching fibers, especially artificial fibers. Ger. patent 746 433. Class 29a, group 6 dated Jan 3, 1936. In German. 1.50

5626-5629 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.G., WUPPERTAL-ELBERFELD. Device for reeling artificial threads. Ger. patent 572 376. Class 29a, group 6 dated Sep 17, 1931. In German. 1.50

5630-5632 PB L 70329 JAHN, LUDWIG (Inventor). Bobbin holder for rayon spinning frames. Ger. patent 574 469. Class 29a, group 6 dated Jun 16, 1931. In German. 1.50

5633-5635 PB L 70329 SANDWEG, HERMANN (Inventor). Reel, especially for freshly spun rayon. Ger. patent 607 228. Class 29a, group 6 dated Jan 8, 1933. In German. 1.50

5636-5638 PB L 70329 WADDEL, MONTGOMMERY and PETTIT, SILAS WRIGHT (Inventors). Device for winding synthetic silk threads during production. Ger. patent 204 215. Class 29a, group 6 dated Mar 12, 1907. In German. 1.50

5639-5641 PB L 70329 FIVÉ, LÉON (Inventor). Device for regulating the tension of threads during the producing of synthetic silk. Ger. patent 200 824. Class 29a, group 6 dated Feb 19, 1907. In German. 1.50

5642-5644 PB L 70329 MORANE, DESMARAIS & GEORGES and others (Inventors). Device for regulating the pressure of collodion and other cellulose solutions before filtration, and before spinning into rayon. Ger. patent 197 167. Class 29a, group 6 dated Mar 29, 1905. In German. 1.50

5645-5647 PB L 70329 VITTENET, HENRI ETIENNE ALFRED (Inventor). Device for producing rayon, and for reclaiming the gases used during the process. Ger. patent 194 825. Class 29a, group 6 dated Jul 19, 1906. In German. 1.50

5648-5650 PB L 70329 SOCIÉTÉ FRANÇAISE DE LA VISCOSE, PARIS. Device for spinning viscose rayon. Ger. patent 192 406. Class 29a, group 6 dated Jul 19, 1906. In German. 1.50

5651-5653 PB L 70329 DONNERSMARCK, FUERST GUIDO HENCKEL VON (Inventor). Pump for machines, used for the manufacture of threads from cellulose or similar fiber material. Ger. patent 189 139. Class 29a, group 6 dated Jul 5, 1903. In German. 1.50

5654-5656 PB L 70329 GOCHER CELLWOLLE, GEBR. VAN DER BOSCH, GOCH, RHLD. Methods for producing synthetic threads. Ger. patent 188 910. Class 29a, group 6 dated Nov 15, 1905. In German. 1.50

5657-5659 PB L 70329 KRAFFT, VICTOR (Inventor). Device for producing synthetic threads, e.g., rayon threads. Ger. patent 186 277. Class 29a, group 6 dated Mar 1, 1906. In German. 1.50

5660-5662 PB L 70329 SOCIÉTÉ FRANÇAISE DE LA VISCOSE, PARIS. Mechanism for fixing viscose threads under tension. Ger. patent 175 636. Class 29a, group 6 dated Mar 9, 1904. In German. 1.50

5663-5665 PB L 70329 SOCIÉTÉ ANONYME DES PLAQUES & PAPIERS PHOTOGRAPHIQUES A. LUMIÈRE & SES FILS, LYON, FRANKR. Winding device for rayon. Ger. patent 173 012. Class 29a, group 6 dated Apr 30, 1905. In German. 1.50

5666-5668 PB L 70329 FRIEDRICH, ERNST WILLY (Inventor). Device for separating synthetic threads from the stiffening fluid and for spooling such threads. Ger. patent 172 265. Class 29a, group 6 dated Sep 8, 1904. In German. 1.50

5669-5671 PB L 70329 SOCIÉTÉ ANONYME DES PLAQUES & PAPIERS PHOTOGRAPHIQUES A. LUMIÈRE & SES FILS, LYON. Filter press for filtering collodion solutions, used for the manufacture of rayon. Ger. patent 170 935. Class 29a, group 6 dated Apr 30, 1905. In German. 1.50

5672-5674 PB L 70329 LINKMEYER, RUDOLF (Inventor). Equipment used for producing synthetic threads. Ger. patent 169 906. Class 29a, group 6 dated Mar 21, 1905. In German. 1.50

5675-5677 PB L 70329 LA SOCIÉTÉ GÉNÉRALE DE LA SOIE ARTIFICIALLE LINKMEYER SOCIÉTÉ ANONYME, BRÜSSEL. Device for producing synthetic silk. Ger. patent 168 830. Class 29a, group 6 dated Jun 21, 1904. In German. 1.50

5678-5682 PB L 70329 COURTAULDS LIMITED, LONDON. Process and device for after-treating artificial threads, etc. Ger. patent 542 810. Class 29a, group 6 dated Mar 28, 1928. In German. 1.50

5683-5689 PB L 70329 THE VISCOSE COMPANY, INC., MARCUS HOOK, PA. Process and device for wet treatment, especially for washing rayon threads wound in cakes or bobbins. Ger. patent 461 456. Class 29a, group 6 dated Dec 5, 1924. In German. 1.50

5690-5692 PB L 70329 LANDESKRONER, CARL (Inventor). Process for treating rayon cakes spun in spinning cans. Ger. patent 545 765. Class 29a, group 6 dated Feb 14, 1928. In German. 1.50

5693-5695 PB L 70329 VEREINIGTE GLANZSTOFF-FABRIKEN A.-G., WUPPERTAL-ELBERFELD. Machine for washing and after-treating cakes put on supporting bars. Ger. patent 545 445. Class 29a, group 6 dated Aug 19, 1930. In German. 1.50

5696-5698 PB L 70329 — LINKMEYER, C. RUDOLPH (Inventor). Process and device for acidulating threads during the stretch spinning process. Ger. patent 525 071. Class 29a, group 6 dated Feb 2, 1928. In German. 1.50

5699-5701 PB L 70329 — I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A. MAIN. Device for washing and aftertreating cakes produced by pot spinning machines. Ger. patent 528 916. Class 29a, group 6 dated Mar 17, 1929. Inventor: Kirchhoff. In German. 1.50

5702-5705 PB L 70329 — I.G. FARBENINDUSTRIE AKT.-GES., FRANKFURT A. MAIN. Device for aftertreating rayon bobbins. Ger. patent 530 073. Class 29a, group 6 dated Nov 27, 1929. Inventor: Lautz. In German. 1.50

5706-5708 PB L 70329 — GLANZSTOFF-COURTAULDS G.M.B.H., KÖLN-MERHEIM. Process for aftertreating rayon cakes. Ger. patent 545 121. Class 29a, group 6 dated Jul 30, 1931. In German. 1.50
Supplement to patent 531 019.

5709-5711 PB L 70329 — RUSHTON, JAMES LEVER (Inventor). Combined claw- and friction coupling, especially for driving spinning cans. Ger. patent 456 011. Class 29a, group 6 dated Oct 8, 1926. In German. 1.50

5712-5714 PB L 70329 — N. V. ONDERZÖKINGSINSTITUUT "RESEARCH", ARNHEM, HOLLAND. Process and thread guide for reducing the friction of a thread, especially of a rayon thread. Ger. patent 743 309. Class 29a, group 6 dated Feb 13, 1941. Inventor: Gonsalves. In German. 1.50

5715-5718 PB L 70329 — I.G. FARBENINDUSTRIE AG, FRANKFURT A. MAIN. Apparatus for cutting endless artificial fiber ropes or bands. Ger. patent 743 306. Class 29a, group 6 dated May 23, 1941. Inventor: Thompson. In German. 1.50

MISCELLANEOUS

PB L 70145. DEUTSCHES REICHSPATENTAMT, BERLIN. Collection of patent specifications in various fields of technology. (FIAT Microfilm Reel J 5, Frames 1-1068) Oct-Nov 1944. 1069 f. Price: Microfilm-$6.00 - Enlargement print-$107.00

This reel was prepared by FIAT investigators in Germany and consists of patents in various fields, the patent numbers ranging from 748 154 to 748 633, with the following patents missing:

748 190; 748 196; 748 200; 748 203; 748 221; 748 234; 748 255; 748 259; 748 274; 748 279; 748 285; 748 294; 748 301; 748 303; 748 346; 748 355; 748 356; 748 361; 748 366; 748 368; 748 369; 748 370; 748 380; 748 382; 748 383; 748 386; 748 388; 748 392; 748 441; 748 449; 748 450; 748 451; 748 452; 748 457; 748 458; 748 462; 748 464; 748 466; 748 467; 748 469; 748 470; 748 476; 748 537; 748 538; 748 544; 748 547; 748 548; 748 551; 748 554; 748 556; 748 558; 748 559; 748 561; 748 567; 748 569; 748 573; 748 304; 748 305; 748 306; 748 307; 748 309; 748 316; 748 317; 748 330; 748 333; 748 335; 748 339; 748 344; 748 396; 748 398; 748 400; 748 405; 748 414; 748 419; 748 420; 748 421; 748 422; 748 425; 748 436; 748 438; 748 440; 748 478; 748 503; 748 504; 748 511; 748 512; 748 516; 748 518; 748 519; 748 525; 748 526; 748 530; 748 533; 748 578; 748 584; 748 589; 748 590; 748 591; 748 592; 748 595; 748 602; 748 620; 748 623.

Issued: October and November 1944. Individual patents are listed below and will be available as enlargement prints only. Please include PB, patent, and frame numbers when ordering individual items. In German.

Frames	Title	Price
1-5 PB L 70145	**HERBERLEIN & CO., A.-G., WATTWIL, SWITZERLAND. Process for producing linen-like effects on threads or fabrics made of cellulose hydrate, cellulose wool. Ger. patent 748 154 dated Oct 27, 1944. Ger. patent application H 153 180 IVd/8k dated Oct 6, 1937. Inventor: Heiss, Ernst. In German.** Frames 1-3 do not relate to the patent.	$1.50
6-8 PB L 70145	SCHILLING, KARL OTTO (Inventor). Wagon for charging coke ovens. Ger. patent 748 155, Oct 27, 1944. Ger. patent application D 84 648 VIb/10a dated Mar 20, 1941. In German.	1.50
9-12 PB L 70145	HERBERT, WILHELM (Inventor). Process for converting olefinic hydrocarbons of low molecular weight into compounds of higher molecular weight. Ger. patent 748 156, Oct 26, 1944. Application M 139 536 IVd/12o dated Oct 20, 1937. In German.	1.50
13-15 PB L 70145	(Source missing). Air-cooled conveyor roll for continuous-feed furnaces. Ger. patent 748 157, Oct 27, 1944. Application dated Feb 28, 1937. In German.	1.50
16-18 PB L 70145	SCHUNACK, JOHANNES (Inventor). Process for transmitting the image-changing and line-synchronizing impulses which have equal amplitudes, in television broadcasting. Ger. patent 748 158, Oct 27, 1944. Application dated Aug 18, 1937. In German.	1.50
19-21 PB L 70145	RADIO CORPORATION OF AMERICA, NEW YORK. Circuit arrangement for generating a saw-tooth shaped current in the deflection coil of a cathode-ray tube. Ger. patent 748 159, Oct 27, 1944. Application R 93 413 VIIIa/21a1 dated Jun 17, 1932. In German.	1.50
22-24 PB L 70145	(Source missing). Multi-stage transmitter. Ger. patent 748 160, Oct 27, 1944. Application dated Aug 24, 1932. In German. This invention pertains to radio transmission.	1.50
25-28 PB L 70145	(Source missing). Arrangement of electron tubes for generating ultra high-frequency electromagnetic oscillations. Ger. patent 748 161, Oct 27, 1944. Application dated Jun 29, 1935. In German.	1.50
29-31 PB L 70145	PENNER, HANS (Inventor). Circuit arrangement for controlling the sound intensity of radio receivers. Ger. patent 748 162, Oct 27, 1944. Application dated Jul 25, 1937. In German.	1.50

32-34 PB L 70145 POLATZEK, MAX (Inventor). Antenna arrangement for direction finding free of night-effect. Ger. patent 748 163, Oct 27, 1944. Application dated Jul 13, 1937. In German. 1.50

35-37 PB L 70145 RUNGE, WILHELM (Inventor). Receiver for the self steering or remote control of vehicles along a guiding line fixed by a radio station. Ger. patent 748 164, Oct 27, 1944. Application dated Aug 21, 1936. In German. 1.50

38-40 PB L 70145 SCHMIDT, ERNST (Inventor). Plug-in club for mobile telegraphic cables. Ger. patent 748 165, Oct 27, 1944. Application dated Jul 16, 1938. In German. 1.50

41-43 PB L 70145 CRÄMER, RICHARD (Inventor). Capacitor lead-in. Ger. patent 748 166, Oct 27, 1944. Application dated Nov 10, 1935. In German. 1.50

44-45 PB L 70145 WEDEL, REINHOLD (Inventor). Arrangement for the actuation of regulating and controlling instruments by means of low direct-current voltages. Ger. patent 748 167, Oct 27, 1944. Application dated Oct 28, 1934. In German. 1.50

46-48 PB L 70145 STERNKOPF, HELMUT (Inventor). Push button control for machine tools. Ger. patent 748 168, Oct 27, 1944. Application dated Jun 3, 1938. In German. 1.50

49-51 PB L 70145 BECHMANN, HANS (Inventor). Regulator for winding-up devices driven by electromotive power. Ger. patent 748 169, Oct 27, 1944. Application L 100 456 VIIId/21c dated Mar 28, 1940. In German. Addition to patent 654 600. 1.50

52-55 PB L 70145 BRÜCKEL, WALDEMAR and KÖBERICH, RUDOLF (Inventors). Device for transmitting communications. Ger. patent 748 170, Oct 27, 1944. Application dated Dec 20, 1933. In German. This device is based on high-frequency current transmission. 1.50

56-59 PB L 70145 AKTIENGESELLSCHAFT BROWN, BOVERI & CIE, BADEN, SWITZERLAND. Overvoltage protective device. Ger. patent 748 171, Oct 27, 1944. Inventor: Thommen. Application A 83 801 VIIIb/21c dated Aug 3, 1937. In German. 1.50

60-62 PB L 70145 (Source missing). Armature arrangement for electromotors in implements for small-scale work. Ger. patent 748 172, Oct 27, 1944. Application dated Jul 19, 1938. In German. 1.50

63-66 PB L 70145 RAUPACH, FRIEDRICH (Inventor). Combined current and voltage transformer. Ger. patent 748 173, Oct 27, 1944. Application K 158 789 VIIId/21d^2 dated Sep 26, 1940. In German. 1.50

67-69 PB L 70145 SIEBER, OTTO (Inventor). Casing for transformers, condensers or similar electric instruments. Ger. patent 748 174, Oct 27, 1944. Application dated Mar 1, 1940. In German. 1.50

70-72 PB L 70145 STÜMPER, HANS (Inventor). Regulating transformer. Ger. patent 748 175, Oct 27, 1944. Application dated Nov 17, 1939. In German. 1.50

73-77 PB L 70145 SCHENK, FRITZ and LEISCHNER, GEORG (Inventors). Adjustable shielded transformer for practically continuously smooth voltage regulation. Ger. patent 748 176, Oct 28, 1944. Application P 73 338 VIIId/21d^2 dated Jun 12, 1936. In German. 1.50

78-81 PB L 70145 KAGEL, HANS (Inventor). Current supply system provided with a larger number of small polyphase generators for reserve purposes, installed at separate places, driven by combustion motors, and having a common bus. Ger. patent 748 177, Oct 31, 1944. Application St 56 237 VIIId/21d^3 dated May 23, 1937. In German. 1.50

82-85 PB L 70145 SELL, HELMUT (Inventor). Device for the selective switching of an electric measuring instrument with high power consumption, especially an ink recorder, to various recording ranges or current types. Ger. patent 748 178, Oct 27, 1944. Application dated Oct 25, 1936. In German. 1.50

86-89 PB L 70145 JAHRE, RICHARD, SPEZIALFABRIK FÜR KONDENSATOREN, BERLIN. Process for impregnating condensers. Ger. patent 748 179, Oct 27, 1944. Application I 62 933 VIIIc/21g dated Nov 20, 1938. Inventor: Springer. In German. 1.50

90-92 PB L 70145 DEUTSCHES REICH, VERTRETEN DURCH DEN REICHSMINISTER DER LUFTFAHRT UND OBERBEFEHLS HABER DER LUFTWAFFE, BERLIN. Grid control for high-voltage rectifiers filled with gas or vapors. Ger. patent 748 180, Oct 27, 1944. Application R 102 958 VIIIc/21g dated Jul 28, 1938. Inventor: Jungmichl. In German. 1.50

93-95 PB L 70145 PHILIPS PATENTVERWALTUNG G.M.B.H., BERLIN. Electron tube with double control, in which at least three grid shaped electrodes are arranged between a cathode and an anode. Ger. patent 748 181, Oct 27, 1944. Application N 40 834 VIIIc/21g dated Jun 15, 1937. Inventors: Jonker and Gall. In German. 1.50

96-98 PB L 70145 PHILIPS PATENTVERWALTUNG G.M.B.H., BERLIN. Electric discharge tube. Ger. patent 748 182, Oct 27, 1944. Application N 39 381 VIIIc/21g dated Apr 17, 1936. Inventors: Jonker and Van Overbeck. In German. 1.50

99-101 PB L 70145 MÜLLNER, MAX (Inventor). Tube tester and instrument requiring complicated electric connections. Ger. patent 748 183, Oct 28, 1944.

Application M 141 773 VIIIc/21g dated May 26, 1938. In German. 1.50

102-103 PB L 70145 (Source missing). Metallic discharge tube having anode arms which are symmetrically arranged around the tube axis and are laterally attached to the cylindrical envelope of the tube. Ger. patent 748 184, Oct 28, 1944. Application dated May 17, 1936. In German. 1.50

105-108 PB L 70145 MÜHLENPFORDT, JUSTUS (Inventor). Process for producing X-ray flashes. Ger. patent 748 185, Oct 28, 1944. Application Nov 8, 1939. In German. 1.50

109-111 PB L 70145 ZÜHLKE, KARL (Inventor). Tube for X-ray flashes. Ger. patent 748 186, Oct 28, 1944. Application dated Oct 18, 1940. In German. 1.50
Addition to patent 748 185.

112-114 PB L 70145 VANDER TURK, JACOB HERMANNUS and BOUWERS, ALBERT (Inventors). X-ray tube with rotatory anode mounted on a ball-bearing. Ger. patent 748 187, Oct 28, 1944. Application N 41 029 VIIIc/21g dated Aug 3, 1937. In German. 1.50

116-117 PB L 70145 (Source missing). Electric time switch relay for X-ray machines. Ger. patent 748 188, Oct 28, 1944. Application K 128 195 VIIIc/21g dated Dec 14, 1923. In German. 1.50

118-120 PB L 70145 VOGT, WILHELM (Inventor). Device for the operation of X-ray tubes. Ger. patent 748 189, Oct 28, 1944. Application dated Sep 29, 1938. In German. 1.50

121-123 PB L 70145 BRÜCHE, ERNST and MAHL, HANS (Inventors). Two phase electronic microscope. Ger. patent 748 191, Oct 28, 1944. Application L 97 585 VIIIc/21g dated Mar 31, 1939. In German. 1.50

124-126 PB L 70145 BRÜCHE, ERNST (Inventor). Vacuum conduction for supermicroscopes operated on the pump. Ger. patent 748 192, Oct 28, 1944. Application L 99 693 VIIIc/21g dated Dec 14, 1939. In German. 1.50

127-128 PB L 70145 (Source missing). Device for electric spot-welding under the simultaneous effect of sound or ultra-sound. Ger. patent 748 193, Oct 28, 1944. Application B 180 325 VIIIc/21h dated Oct 14, 1937. In German. 1.50

129-130 PB L 70145 (Source missing). Process for obtaining high-grade soap fatty acids. Ger. patent 748 194, Oct 28, 1944. Application dated Jun 3, 1937. In German. 1.50

131-134 PB L 70145 SCHAFFHAUSER STRICKMASCHINENFABRIK, SCHAFFHAUSEN, SWITZERLAND. Eccentrically controlled lining apparatus for round-weaving machines. Ger. patent 748 195, Oct 28, 1944. Application Sch 109 540 VII/25a dated Mar 20, 1936. In German. 1.50

135-136 PB L 70145 SCHIERHOLD, PAUL (Inventor). Use of a chromium nickel alloy for dentistry. Ger. patent 748 197, Oct 28, 1944. Application D 82 224 IIa/30b dated Mar 1, 1940. In German. 1.50

137-139 PB L 70145 BALZ, PAUL (Inventor). Chain-type cleaner for melting channels of induction furnaces. Ger. patent 748 198, Oct 28, 1944. Application dated Aug 16, 1939. In German. 1.50

140-143 PB L 70145 GUERTLER, WILLIAM (Inventor). Process for improving the mechanical properties, particularly the coefficient of extension of light metal cast parts. Ger. patent 748 199, Oct 28, 1944. Application G 99 743 VIa/31c dated Mar 22, 1939. In German. 1.50

144-146 PB L 70145 (Source missing). Electrically driven conveying machine for operation in mines. Ger. patent 748 201, Oct 28, 1944. Application dated Aug 16, 1935. In German. 1.50

147-148 PB L 70145 GARLEPP, BRUNO. Travelling crane with rigidly connected beam mounted in the longitudinal mid-plane of the bridge girder. Ger. patent 748 202, Oct 28, 1944. Application G 90 389 XI/35b dated Sep 27, 1933. In German. 1.50

149-151 PB L 70145 (Source missing). Electric exposure meter. Ger. patent 748 204, Oct 28, 1944. Application M 127 996 IIa/42h dated Jul 8, 1934. In German. 1.50

152-158 PB L 70145 PESCARA, PAUL PATERAS, PARIS and SOCIETE D'ETUDES ET DE PARTICIPATIONS EAU, GAZ, ELECTRICITE ENERGIE S.A., GENEVA, SWITZERLAND. Plant with several fuel pressure gas generators. Ger. patent 748 205, Nov 9, 1944. Application P 78 559 Ia/46a4 dated Jan 25, 1939. Inventor: Pescara. In German. 1.50

159-161 PB L 70145 (Source missing). Cell filter insert for purifying liquid motor fuels for combustion engines. Ger. patent 748 206, Oct 28, 1944. Application dated Mar 13, 1938. In German. 1.50

162-164 PB L 70145 LEHMANN, WILLY (Inventor). Arrangement for purifying the combustible air of combustion engines. Ger. patent 748 207, Oct 28, 1944. Application F 87 648 Ia/46c^2 dated Nov 24, 1939. In German. 1.50

165-168 PB L 70145 GEBRÜDER SULZER A.G., WINTERTHUR, SWITZERLAND. Gas turbine plant. Ger. patent 748 208, Oct 28, 1944. Application S 132 611 Ia/46f dated Jun 19, 1938. In German. 1.50

169-171 PB L 70145 HAAS, EDUARD (Inventor). Cover for cleaning vessels, particularly of those for the cleaning of metallic objects. Ger. patent 748 209, Oct 28, 1944. Application H 164 140 VIa/48d dated Dec 28, 1940. In German. 1.50

172-173 PB L 70145 (Source missing). Process for preparing phosphate coatings on iron and steel. Ger. patent 748 210, Oct 28, 1944. Ap-

plication dated Apr 23, 1939. In German. 1.50

174-175 PB L 70145 SCHÜTZ, FRANZ (Inventor). Process for preparing welding rods cast from alloys of cobalt, chromium, tungsten, or chromium, manganese, silicon, zirconium alloys, in order to obtain gas weldings resistant to wear and tear. Ger. patent 748 211, Oct 28, 1944. Application B 179 483 VIa/49h dated Aug 5, 1937. In German. 1.50

176-178 PB L 70145 (Source missing). Arrangement of diaphragm for stereo cameras. Ger. patent 748 212, Oct 28, 1944. Application dated Jun 24, 1937. In German. 1.50

179-181 PB L 70145 (Source missing). Airplane intended for various purposes. Ger. patent 748 213, Oct 28, 1944. Application B 184 610 XI/62b dated Sep 15, 1938. In German. 1.50

182-186 PB L 70145 GABRIEL, FRITZ. Gun-carriage for airplanes. Ger. patent 748 214, Oct 30, 1944. Application G 91 847 XI/62b dated Dec 31, 1935. In German. 1.50

187-189 PB L 70145 ROLAND, HEINRICH (Inventor). Automatic release for serial dropping of cargo, particularly from airplanes. Ger. patent 748 215, Oct 30, 1944. Application S 114 305 XI/62c dated Jun 13, 1934. In German. 1.50

190-192 PB L 70145 RASPER, LUDWIG and others (Inventors). Caterpillar tread. Ger. patent 748 216, Oct 30, 1944. Application L 99 556 II/63c dated Nov 30, 1939. In German. 1.50

193-194 PB L 70145 GROSSKOPF, BRUNO C. (Inventor). Gallows-type device for suspending fishing vessels. Ger. patent 748 217, Oct 30, 1944. Application G 101 656 XI/65a[1] dated Apr 30, 1940. In German. 1.50

195-196 PB L 70145 KORT, LUDWIG (Inventor). Bilge pump for ships. Ger. patent 748 218, Oct 30, 1944. Application K 157 442 XI/65f[3] dated Apr 27, 1940. In German. 1.50

197-199 PB L 70145 LOCK, PHILIPP (Inventor). Design and arrangement of chopping knives. Ger. patent 748 219, Oct 31, 1944. Application L 96 012 III/66b dated Oct 29, 1938. In German. 1.50

200-202 PB L 70145 FIRMA L. EISELE, STUTTGART. Meat-grinder. Ger. patent 748 220, Oct 31, 1944. Application dated Jun 4, 1937. Inventor: Eisele. In German. 1.50

203-205 PB L 70145 (Source missing). Process for preparing highly fire-proof magnesite bricks from a material whose coarse-grained portion together with the fine-grained portion quantitatively surpasses the middle-grained portion. Ger. patent 748 222, Oct 30, 1944. Application dated Feb 26, 1933. In German. 1.50

206-208 PB L 70145 (Source missing). Dredge with a digging device that is attached to a beam and can be shifted mechanically in two opposite directions. Ger. patent 748 223, Oct 30, 1944. Application M 129 468 V/84d dated Dec 15, 1934. In German. 1.50

209-211 PB L 70145 KUHSEL, ALBERT (Inventor). Mounting of the swinging upper part on the travelling lower part of a dredge, crane or the like. Ger. patent 748 224, Oct 30, 1944. Application dated Feb 5, 1939. In German. 1.50

212-214 PB L 70145 A.-B. ALEA ALUMINIUMKAPSLAR, LINKÖPING, SWEDEN. Combination tool for producing semi-finished material for metal capsules having a stamped removable strip. Ger. patent 748 225, Oct 30, 1944. Application A 75 598 Ib/7c dated Mar 17, 1935. In German. 1.50

215-216 PB L 70145 ZIESE, WALTER and DOSER, ARNOLD (Inventors). Process for making fibrous materials water-repellent. Ger. patent 748 226, Oct 30, 1944. Application dated May 5, 1939. In German. 1.50

217-219 PB L 70145 KRUEGER, HUGO and GIESELER, KURT (Inventors). Kindling material that is completely consumed. Ger. patent 748 227, Oct 30, 1944. Application N 41 887 VIb/10b dated Apr 23, 1938. In German. 1.50
The material is made of coal and tar distillation products.

220-221 PB L 70145 GEWECKE, FRITZ (Inventor). Process for obtaining very finely divided silicic acid. Ger. patent 748 228, Oct 30, 1944. Application A 88 951 IVb/12i dated Feb 8, 1939. In German. 1.50

222-224 PB L 70145 FRITSCHE, ERICH (Inventor). Feed control for a two-roll printing press. Ger. patent 748 229, Oct 30, 1944. Application dated Mar 15, 1939. In German. 1.50

225-227 PB L 70145 LEICHSENRING, PAUL RUDOLF (Inventor). High-speed press with paper-flattening cylinder. Ger. patent 748 230, Oct 30, 1944. Application L 94 943 XII/15d dated Jun 8, 1938. In German. 1.50

228-230 PB L 70145 (Source missing). Device for gluing an unwinding course of paper to a new paper roll. Ger. patent 748 231, Oct 1944. Application dated Feb 25, 1939. In German. 1.50

231-233 PB L 70145 (Source missing). Device for pressing the unwinding course of paper to the new paper roll. Ger. patent 748 232, Oct 30, 1944. Application dated Apr 21, 1940. In German. 1.50
This invention pertains to an improvement of printing machines.

234-236 PB L 70145 (Source missing). Device for cleaning the counter pressure cylinder in the counter pressure system of rotatory printing machines. Ger. patent 748 233, Oct 30, 1944. Application dated Mar 9, 1941. In German. 1.50

237-241 PB L 70145 ROTHE, HORST (Inventor). Process for producing negative resistances for generating or ampli-

fying high frequency oscillations. Ger. patent 748 234, Oct 30, 1944. Application dated Oct 25, 1936. In German. 1.50

242-244 PB L 70145 PHILIPP, GUSTAV (Inventor). Fusable conductor for delayed action safety fuses. Ger. patent 748 236, Oct 30, 1944. Application E 55 474 VIIIb/21c dated Nov 11, 1941. In German. 1.50

245-247 PB L 70145 (Source missing). Insulated hanger. Ger. patent 748 237, Oct 30, 1944. Application Sch 120 257 VIIIc/21f dated Apr 11, 1940. In German. 1.50

248-249 PB L 70145 (Source missing). Lamp for manual use or installed on a machine. Ger. patent 748 238, Oct 30, 1944. Application Sch 119 518 VIIIc/21f dated Dec 17, 1938. In German. 1.50

250-251 PB L 70145 FRITZE, OTTO and RÜTHENAUER, ALFRED (Inventors). Electric illuminating tube filled exclusively with noble gases, which carries on the inside a layer of luminous phosphorus. Ger. patent 748 239, Oct 30, 1944. Application P 73 274 VIIIc/21f dated May 29, 1936. In German. 1.50
Addition to patent 724 811.

252-253 PB L 70145 LAUTER, ROBERT (Inventor). Process for producing incandescent cathodes for electric vacuum tubes. Ger. patent 748 240, Oct 30, 1944. Application dated Aug 31, 1937. In German. 1.50

254-255 PB L 70145 (Source missing). Process for preparing phthalocyanines. Ger. patent 748 241, Oct 30, 1944. Application dated May 27, 1937. In German. 1.50

256-257 PB L 70145 STANDARD OIL DEVELOPMENT CO., LINDEN, NEW JERSEY. Anti-oxidants for highly refined and temperature resistant lubricants consisting of mineral oil. Ger. patent 748 242, Oct 31, 1944. Application St 52 510 IVd/23c dated Aug 19, 1934. In German. 1.50

258-259 PB L 70145 STANDARD OIL DEVELOPMENT CO., LINDON, NEW JERSEY. Lubricants. Ger. patent 748 243, Oct 31, 1944. Application St 55 106 IVd/23c dated Aug 1, 1936. In German. 1.50
These lubricants are made of suitable hydrocarbons and a small amount of organic compounds containing sulfur, selenium and tellurium.

260-262 PB L 70145 STANDARD OIL DEVELOPMENT CO., LINDEN, NEW JERSEY. Prevention of the oxidation of lubricants. Ger. patent 748 244, Oct 31, 1944. Application St 59 307 IVd/23c dated Dec 16, 1939. Inventor: Mikeska. In German. 1.50

263-264 PB L 70145 E. J. DUPONT DE NEMOURS & CO., INC., WILMINGTON, DELAWARE. Use of organic carbonyl compounds as solvents for acetylene hydrocarbons. Ger. patent 748 245, Nov 2, 1944. Application P 75 152 IVb/26b dated Apr 25, 1937. Inventors: Scott and Harris. In German. 1.50

265-267 PB L 70145 H. SPELLEKEN NACH KOM.-GES., WUPPERTAL. Hollow rotary piston set on a wheel spindle. Ger. patent 748 246, Oct 30, 1944. Application S 149 174 Ia/27c dated Mar 1, 1942. Inventor: Orf. In German. 1.50

268-269 PB L 70145 (Source missing). Process for preparing synthetic materials such as threads, bands or films from viscose which has a reduced solubility in alkali. Ger. patent 748 247, Oct 31, 1944. Application P 80 940 IVc/29b dated Jun 29, 1940. In German. 1.50

270-271 PB L 70145 PROBST & CLASS, BERLIN. Process for preparing extracts and tinctures from plant and animal tissues. Ger. patent 748 248, Oct 31, 1944. Application P 79 668 IVa/30h dated Aug 25, 1939. Inventor: Schlechter. In German. 1.50

272-273 PB L 70145 KUHN-KRAMER, KAROLINE, GEB. HEIMBERGER. (Inventor). Process for preparing a pharmaceutical with hemostatic and wound-healing properties. Ger. patent 748 249, Oct 31, 1944. Application K 157 787 IVa/30h dated Jun 4, 1940. In German. 1.50

274-275 PB L 70145 KÜLLER, PAUL (Inventor). Process for producing agents for dental and oral prophylaxis. Ger. patent 748 250, Oct 31, 1944. Application K 164 739 IVa/30h dated May 17, 1942. In German. 1.50
Addition to patent 708 543.

276-278 PB L 70145 (Source missing). Process for producing thin-walled bearing-shells with steel caps, by casting or dipping. Ger. patent 748 251, Oct 30, 1944. Application R 105 846 VIa/31c dated Aug 13, 1939. In German. 1.50

279-280 PB L 70145 GEVAERT PHOTO-PRODUCTEN N.V., OUDE-GOD, ANTWERP, BELGIUM. Process for manufacturing films from cellulose ester compounds. Ger. patent 748 252, Oct 31, 1944. Application G 100 919 XII/39a dated Nov 11, 1939. Inventors: Tritsmans, and Hendricx. In German. 1.50

281-287 PB L 70145 (Source missing). Process for preparing polyamides of high molecular weight that can be molded. Ger. patent 748 253, Oct 30, 1944. Application dated Jun 11, 1938. In German. 1.50

288-289 PB L 70145 (Source missing). Lead as bearing metal. Ger. patent 748 254, Oct 31, 1944. Application dated Jun 2, 1940. In German. 1.50
Addition to patent 740 426.

290-292 PB L 70145 (Source missing). Pressure gauge with tubular spring. Ger. patent 748 256, Oct 30, 1944. Application dated Nov 10, 1938. In German. 1.50

293-295 PB L 70145 (Source missing). Propeller brake for engine test stands. Ger. patent 748 257, Oct 30, 1944. Application dated Oct 25, 1938. In German. 1.50

296-297 PB L 70145 — JOB, RUPERT (Inventor). Thrashing drum and thrashing basket. Ger. patent 748 258, Oct 30, 1944. Application I 68 990 III/45e dated Feb 27, 1941. In German. 1.50

298-299 PB L 70145 — STANDARD OIL DEVELOPMENT CO., LINDEN, NEW JERSEY. Motor fuel. Ger. patent 748 260, Nov 2, 1944. Application St 57 090 IVd/46a dated Feb 6, 1938. Inventors: Gilliland and Rosen. In German. 1.50
This fuel contains 10 percent or more of alkyl ethers with branched C chains.

300-303 PB L 70145 — IMFELD, KARL (Inventor). Process for controlling the blower pressure of an internal combustion engine which is charged by means of an exhaust-turbo blower. Ger. patent 748 261, Oct 30, 1944. Application dated Jun 28, 1939. In German. 1.50

304-306 PB L 70145 — DEUTSCHE ÖLSEN-STUDIENGESELLSCHAFT M.B.H., BERLIN. Rotatory slide for the periodic injection of fuel in combustion engines. Ger. patent 748 262, Oct 30, 1944. Application D 81 152 Ia/46c dated Sep 5, 1939. Inventor: Von Rosenberg. In German. 1.50

307-309 PB L 70145 — BRÜMMERHOFF, WALTER (Inventor). Process and device for operating internal combustion engines. Ger. patent 748 263, Oct 30, 1944. Application B 176 894 Ia/46f dated Jan 8, 1937. In German. 1.50
(Two frames carry No. 308).

310-312 PB L 70145 — (Source missing). Pressure firing for solid fuels. Ger. patent 748 264, Oct 30, 1944. Application dated Jun 27, 1941. In German. 1.50

313-314 PB L 70145 — KRÖNER, ADOLF ROBERT (Inventor). Electrolytic etching process. Ger. patent 748 265, Oct 31, 1944. Application K 159 929 VIa/48a dated Jan 23, 1941. In German. 1.50

315-317 PB L 70145 — HISCHMANN, MAX (Inventor). Process for producing galvanic deposits of gold alloys. Ger. patent 748 266, Oct 31, 1944. Application H 164 535 VIa/48a dated Feb 11, 1941. In German. 1.50

318-320 PB L 70145 — (Source missing). Boring device with automatic advance and rapid recoil. Ger. patent 748 267, Oct 30, 1944. Application dated Mar 14, 1939. In German. 1.50

321-323 PB L 70145 — (Source missing). Knife head for working up the teeth of toothed wheels. Ger. patent 748 268, Nov 2, 1944. Application dated Aug 9, 1939. In German. 1.50

324-326 PB L 70145 — (Source missing). Cut for the body of boxes whose longitudinal seams (with lap joint or flange butt joint) are formed between electric welding rollers. Ger. patent 748 269, Oct 30, 1944. Application dated Nov 24, 1939. In German. 1.50

327-331 PB L 70145 — UNITED SHOE MACHINERY CORPORATION, FLEMINGTON, N.J. and BOSTON, MASS. Double back-stitch sewing machine which is stopped at the last partially finished stitch. Ger. patent 748 270, Oct 30, 1944. Application U 12 328 VII/52a dated Sep 10, 1933. In German. 1.50

332-333 PB L 70145 — (Source missing). Process for preparing food mixtures or foodstuffs which are durable, save fats and contain vegetables. Ger. patent 748 271, Oct 31, 1944. Application dated Apr 29, 1939. In German. 1.50

334-336 PB L 70145 — (Source missing). Foam board for paper, paste board, and similar machines. Ger. patent 748 272, Oct 30, 1944. Application dated Jun 29, 1939. In German. 1.50

337-338 PB L 70145 — HERBST & ILLIG, FRANKFURT, MAIN. Glass screen for the autotypic decomposition of the image for multicolor cloth printing free from moire. Ger. patent 748 273, Oct 31, 1944. Application H 166 849 IVa/57d dated Nov 23, 1941. In German. 1.50

339-341 PB L 70145 — SCHNEIDER, ALFRED (Inventor). Arrangement for the shifting of aircraft auxiliary wings. Ger. patent 748 275, Oct 30, 1944. Application dated Dec 14, 1941. In German. 1.50

342-344 PB L 70145 — (Source missing). Horn type steering device for aircraft. Ger. patent 748 276, Oct 30, 1944. Application dated Nov 14, 1941. In German. 1.50

345-347 PB L 70145 — SCHOEN, HERBERT (Inventor). Adjusting strut for aircraft, constructed like a telescope tube. Ger. patent 748 277, Oct 30, 1944. Application Sch 120 170 XI/62b dated Mar 22, 1940. In German. 1.50
Addition to patent 728 258.

348-350 PB L 70145 — (Source missing). Arrangement for mass take-off of heavily loaded aircraft. Ger. patent 748 278, Oct 30, 1944. Application dated Mar 1, 1938. In German. 1.50

351-353 PB L 70145 — LÖBBE, WILHELM (Inventor). Device for mining minerals which occur in seams. Ger. patent 748 280, Oct 30, 1944. Application G 104 446 VIb/5b dated Sep 17, 1939. In German. 1.50
Addition to patent 734 894.

354-355 PB L 70145 — BANK FÜR BRAU-INDUSTRIE, BERLIN. Process for enriching beer with vitamines and other active ingredients of yeast. Ger. patent 748 281, Oct 31, 1944. Application L 96 092 IVa/6b dated Nov 5, 1938. Inventor: Lux. In German. 1.50

356-357 PB L 70145 — AKTIEN-BRAUEREI NEUSTADT-MAGDEBURG, MAGDEBURG. Process for producing beer free from or low in alcohol, or beer-like beverages. Ger. patent 748 282, Oct 31, 1944. Application A 93 413 IVa/6b dated May 10, 1941. Inventor: Piratzky. In German. 1.50

358-360 PB L 70145 — WIRTHMANN, WILHELM (Inventor). Process for reinforcing thin casing walls for achieving a required screwing length. Ger. patent 748 283, Oct 30,

1944. Application Sch 121 515 Ib/7c dated Dec 4, 1940. In German. 1.50

361-365 PB L 70145 SCHMITT, GUSTAV. Five roll calender for lustering courses of fabrics. Ger. patent 748 284, Nov 1, 1944. Application Sch 118 275 VII/8b dated Apr 28, 1939. In German. 1.50

366-368 PB L 70145 (Source missing). Continuous production of concentrated nitric acid from nitrous gases. Ger. patent 748 286, Oct 30, 1944. Application H 164 366 IVb/121 dated Jan 24, 1941. In German. 1.50

369-370 PB L 70145 (Source missing). Process for the catalytic conversion of oxides of carbon into hydrocarbons of higher molecular weight by means of hydrogen. Ger. patent 748 287, Oct 31, 1944. Application R 95 118 IVd/12o dated Jan 1, 1936. In German. 1.50
Addition to patent 701 846.

371-372 PB L 70145 EUGEN, RICHARD and WACHENDORFF, ERNST (Inventors). Process for preparing a ripened alkali cellulose by alkalizing wet cellulose pulp. Ger. patent 748 288, Oct 31, 1944. Application Sch 113 411 IVc/12o dated Jul 25, 1937. In German. 1.50

373-374 PB L 70145 (Source missing). Process for producing (1-) buten-(3)-one. Ger. patent 748 289, Oct 31, 1944. Application C 56 268 IVd/12o dated Feb 25, 1937. In German. 1.50

375-376 PB L 70145 (Source missing). Process for preparing chlorinated products of 3,6-dinitro carbazole. Ger. patent 748 290, Oct 30, 1944. Application dated Jun 4, 1941. In German. 1.50

377-378 PB L 70145 STICKDORN, KURT (Inventor). Process for purifying lactams. Ger. patent 748 291, Oct 31, 1944. Application D 86 213 IVc/12p dated Oct 28, 1941. In German. 1.50

382-384 PB L 70145 SCHMIDT, OSKAR (Inventor). Rack track entrance for powered railway vehicles. Ger. patent 748 292, Oct 30, 1944. Application L 98 623 V/19a dated Jul 25, 1939. In German. 1.50

379-381 PB L 70145 (Source missing). Oil pressure brake with throttled circulation of fluid. Ger. patent 748 293, Oct 31, 1944. Application N 43 021 II/20f dated Mar 7, 1939. In German. 1.50

385-388 PB L 70145 JACOBSEN, BENT BÜLOW and FAIRLEY, FRANK (Inventors). Arrangement for determining the direction in a transmission conducting system. Ger. patent 748 295, Nov 1, 1944. Application I 60 015 VIIIa/21a^2 dated Mar 25, 1938. In German. 1.50
This invention pertains to sound transmission.

389-391 PB L 70145 (Source missing). Clamp for two electric cables provided with a conductive metal band attached around them. Ger. patent 748 296, Oct 31, 1944. Application L 104 238 VIIIb/21c dated May 10, 1941. In German. 1.50

392-394 PB L 70145 (Source missing). Rotatory phase switch for large power transmission lines. Ger. patent 748 297, Oct 31, 1944. Application K 165 474 VIIIb/21c dated Jul 29, 1942. In German. 1.50

395-397 PB L 70145 ZÜGER, JULIUS and VERMEILLE, HENRI (Inventors). Arrangement for the protection of a ratchet clockwork installed within the casing of an electric time switch. Ger. patent 748 298, Oct 31, 1944. Application L 106 151 VIIIb/21c dated Dec 6, 1941. In German. 1.50

398-400 PB L 70145 SCHEID, FRIEDRICH (Inventor). Process for producing a wire-wound variable resistance, mounted on a rod- or ring-shaped ceramic piece and covered with a glazing. Ger. patent 748 299, Nov 1, 1944. Application P 76 541 VIIIb/21c dated Jan 8, 1938. In German. 1.50

401-403 PB L 70145 FRITSCH, KARL (Inventor). Device for controlling the voltage of electric generators. Ger. patent 748 300, Nov 1, 1944. Application dated Apr 30, 1939. In German. 1.50

404-406 PB L 70145 HELBIG, HERBERT (Inventor). Hollow joint for flexible lamps. Ger. patent 748 302, Nov 1, 1944. Application K 162 287 VIIIc/21f dated Sep 27, 1941. In German. 1.50

407-410 PB L 70145 (Source missing). Process for producing heating elements for direct heating (so-called pressed heating elements). Ger. patent 748 308, Nov 1, 1944. Application W 109 244 VIIIc/21h dated Jul 1, 1941. In German. 1.50

411-412 PB L 70145 KRAUS, ALFRED and others (Inventors). Cellulose ester lacquers and cellulose ether lacquers. Ger. patent 748 310, Nov 1, 1944. Application dated Oct 28, 1941. In German. 1.50

413-415 PB L 70145 (Source missing). Piston machine, particularly a compressor, with a wobble plate drive. Ger. patent 748 311, Nov 1, 1944. Application H 166 912 Ia/27b dated Dec 4, 1941. In German. 1.50
Addition to patent 719 503.

416-418 PB L 70145 BÖHME FETTCHEMIE G.M.B.H., CHEMNITZ. Process for producing greasing agents for leather. Ger. patent 748 312, Nov 1, 1944. Application B 197 399 IVd/28a dated Mar 3, 1942. Inventor: Schmitt. In German. 1.50

419-421 PB L 70145 MERTZ, FRITZ (Inventor). Machine for obtaining and cleaning vegetable fibers. Ger. patent 748 313, Nov 1, 1944. Application dated Nov 12, 1941. In German. 1.50

422-424 PB L 70145 GRUNERT, KURT (Inventor). Device for cutting endless travelling bundles of synthetic threads. Ger. patent 748 314, Nov 1, 1944. Application G 102 377 VII/29a dated Oct 11, 1940. In German. 1.50
Addition to patent 665 939.

425-427 PB L 70145 KERN, RUDOLF (Inventor). Device for cutting continuous bands of synthetic threads or long-fiber

spinning material. Ger. patent 748 315, Nov 1, 1944. Application dated Oct 24, 1939. In German. 1.50

428-430 PB L 70145 NOACK, CHRISTOF-FELIX (Inventor). Massaging roll. Ger. patent 748 318, Nov 1, 1944. Application M 46 44h IXa/30f dated Feb 10, 1943. In German. 1.50

431-433 PB L 70145 (Source missing). Device and procedure for producing plated pipes. Ger. patent 748 319, Nov 1, 1944. Application O 25 047 VIa/31c dated Jun 21, 1941. In German. 1.50

434-436 PB L 70145 REICHMANN, BERNHARD (Inventor). Power driven bar grapple. Ger. patent 748 320, Nov 1, 1944. Application R 110 459 XI/35b dated Jul 3, 1941. In German. 1.50

437-439 PB L 70145 (Source missing). Bracing device for reinforced steep rafters with transversal purlins. Ger. patent 748 321, Nov 1, 1944. Application V 37 183 V/37b dated Nov 24, 1940. In German. 1.50

440-442 PB L 70145 (Source missing). Process for producing conveying bands. Ger. patent 748 322, Nov 1, 1944. Application dated Aug 6, 1942. In German. 1.50

443-445 PB L 70145 (Source missing). Auxiliary device for manufacturing tools for producing irregularly curved windows consisting of thermoplastic material, in aircraft. Ger. patent 748 323, Nov 1, 1944. Application dated Sep 14, 1940. In German. 1.50

446-447 PB L 70145 (Source missing). Process for preparing an o-cresol-aldehyde resin capable of being hardened. Ger. patent 748 324, Nov 1, 1944. Application dated Dec 15, 1939. In German. 1.50

448-450 PB L 70145 (Source missing). Directing guide for maps. Ger. patent 748 325, Nov 1, 1947. Application H 163 982 IXb/42c dated Dec 7, 1940. In German. 1.50

451-452 PB L 70145 SCHUHMANN, HANS (Inventor). Gramophone record. Ger. patent 748 326, Nov 8, 1944. Application L 109 422 IXa/42g dated Oct 31, 1942. In German. 1.50

453-455 PB L 70145 (Source missing). Indicator for the topographic scanning of projected stereoscopic pictures. Ger. patent 748 327, Dec 1, 1944. Application dated May 6, 1942. In German. Addition to patent 720 902. 1.50

456-457 PB L 70145 WIDMAIER, OTTO and NENNINGER, LUDWIG (Inventors). Process for the quantitative determination of lead in fuels treated with lead. Ger. patent 748 328, Nov 17, 1944. Application F 87 478 IXb/42 1 dated Sep 30, 1939. In German. 1.50

458-460 PB L 70145 (Source missing). Instrument for measuring a component of the air, particularly carbon dioxide, through absorption. Ger. patent 748 329, Jul 21, 1944. Application dated Mar 21, 1941. In German. 1.50

461-463 PB L 70145 (Source missing). Process for determining the amount of carbon dioxide and other gases in the air. Ger. patent 748 331, Aug 23, 1944. Application dated Feb 2, 1940. In German. 1.50

464-466 PB L 70145 (Source missing). Adding and subtracting machine. Ger. patent 748 332, Nov 23, 1944. Application St 60 103 IXb/42m dated Oct 6, 1940. In German. 1.50

467-468 PB L 70145 (Source missing). Two-cycle internal combustion engine with twofold effect. Ger. patent 748 334, Nov 1, 1944. Application Sch 126 724 Ia/46a4 dated Nov 22, 1942. In German. 1.50

469-471 PB L 70145 (Source missing). Piston engine. Ger. patent 748 336, Nov 1, 1944. Application M 113 035 Ia/46a4 dated Apr 14, 1943. In German. 1.50

472-474 PB L 70145 HOCHMUTH, WALTER (Inventor). Oil pressure control for oil pumps which is influenced by the charging pressure of the internal combustion engine. Ger. patent 748 337, Nov 1, 1944. Application D 87 850 Ia/46c1 dated May 21, 1942. In German. 1.50

475-477 PB L 70145 (Source missing). Device for transmitting pressure forces of solid bodies on the parts involved in the mechanism of a piston and vice versa. Ger. patent 748 338, Nov 1, 1944. Application L 100 358 XII/47f dated Mar 10, 1940. In German. 1.50
Two frames carry the same number 476.

478-482 PB L 70145 (Source missing). Automatic revolving-type lathe. Ger. patent 748 340, Nov 1, 1944. Application A 88 722 Ib/49a dated Jan 3, 1939. In German. 1.50

483-484 PB L 70145 (Source missing). Circular saw blade for cold sawing fitted with segments that can be exchanged. Ger. patent 748 341, Nov 1, 1944. Application Sch 124 590 Ib/49c dated Apr 5, 1942. In German. 1.50

485-486 PB L 70145 MORGENSTERN-WERK HUGO MORGENSTERN, DRESDEN. Soft solder based on lead. Ger. patent 748 342, Nov 1, 1944. Application B 198 176 VIa/49h dated May 10, 1942. Inventor: Morgenstern. In German. 1.50

487-488 PB L 70145 FREIHERR VON HORST, LOUIS ANTON (Inventor). Process for preparing a coffee substitute or a substance mixed to coffee. Ger. patent 748 343, Nov 1,

1944. Application H 163 375 dated Oct 8, 1940. In German. 1.50

489-490 PB L 70145 — OELWERKE NOURY & VAN DER LANDE G.M.B.H., EMMERICH. Process for producing a protein preparation. Ger. patent 748 345, Nov 1, 1944. Application O 24 396 IVa/531 dated Dec 10, 1939. Inventor: Grandel. In German. 1.50

491-493 PB L 70145 — FIRMA JULIUS FISCHER, NORDHAUSEN, HARZ. Drying hanger for strips of paper, fabrics, etc. Ger. patent 748 347, Nov 1, 1944. Application F 92 424 VII/55d dated Sep 6, 1942. Inventor: Goldhahn. In German. 1.50

494-496 PB L 70145 — DIRLA, FRANZ (Inventor). Device for indicating and automatically limiting tears in strips of paper moving in a paper machine. Ger. patent 748 348, Nov 1, 1944. Application L 106 609 VII/55d dated Jan 25, 1942. In German. 1.50

497-498 PB L 70145 — UNIVERSUM-FILM A.G., BERLIN. Process for preparing color films having the effect of moonlight. Ger. patent 748 349, Nov 1, 1944. Application U 15 769 IXa/57a dated Oct 22, 1942. Inventor: Heymer. In German. 1.50

499-501 PB L 70145 — (Source missing). Airplane wing provided with tilting nose and buoyancy valve. Ger. patent 748 350, Nov 1, 1944. Application dated Aug 3, 1939. In German. 1.50

502-504 PB L 70145 — (Source missing). Rudder, pieces of wing tips and similar closed prefabricated parts for aircraft. Ger. patent 748 351, Nov 1, 1944. Application dated Feb 3, 1940. In German. 1.50

505-507 PB L 70145 — (Source missing). Disconnecting device for airplane control. Ger. patent 748 352, Nov 1, 1944. Application dated Jan 20, 1942. In German. 1.50

508-510 PB L 70145 — (Source missing). Automatic control device for charging a pressure fluid reservoir, especially for hydraulic installations in aircraft. Ger. patent 748 353, Nov 1, 1944. Application E 51 841 XI/62c dated Nov 15, 1938. In German. 1.50

511-513 PB L 70145 — (Source missing). Arrangement of the muffler for charging or scavenging air blowers in motor vehicles. Ger. patent 748 354, Nov 17, 1944. Application A 92 431 II/63c dated Dec 3, 1940. In German. 1.50

514-515 PB L 70145 — WOLFF & CO., KOMM.-GES. AUF AKTIEN, WALSRODE. Process for producing on structureless cellulose films coatings that are resistant to water and boiling, and impervious to steam. Ger. patent 748 357, Nov 1, 1944. Application W 110 402 IVd/75c dated Feb 7, 1942. In German. 1.50

516-518 PB L 70145 — TÖLLNER SEN., EUGEN (Inventor). Spatula. Ger. patent 748 350, Nov 1, 1944. Application T 58 352 IVd/75c dated Dec 3, 1942. In German. 1.50
This spatula has several lateral edges which may be used optionally.

519-521 PB L 70145 — (Source missing). Process for preparing a concrete poor in water which has a high strength at the beginning and at the end. Ger. patent 748 359, Nov 1, 1944. Application W 110 812 VIb/80b dated Apr 16, 1942. In German. 1.50

523-524 PB L 70145 — (Source missing). Process for preparing petrified cellulose or fibrous materials resistant to water. Ger. patent 748 360, Nov 1, 1944. Application G 104 318 VIb/80b dated Nov 6, 1941. In German. 1.50
There is no frame 522. Addition to patent 719 731.

525-526 PB L 70145 — (Source missing). Process for removing or preventing formation of algae and fungi in service water. Ger. patent 748 362, Nov 1, 1944. Application D 89 422 IVb/85b dated Dec 8, 1942. In German. 1.50

527-528 PB L 70145 — KURRE, BRUNO (Inventor). Process for treating petroleum deposits with acid through boreholes. Ger. patent 748 363, Nov 1, 1944. Application dated Aug 22, 1940. In German. 1.50

529-530 PB L 70145 — SCHNEIDER, CARO W. and ZENGER, ERNST (Inventors). Process for enriching beer and fermented beverages similar to beer, with vitamines and other active substances. Ger. patent 748 364, Nov 1, 1944. Application dated May 22, 1940. In German. 1.50

531-533 PB L 70145 — THOMAS, PAUL (Inventor). Intermediate receiver used in the distillation process of alcohol. Ger. patent 748 365, Nov 1, 1944. Application T 58 011 IVa/6b dated Sep 25, 1942. In German. 1.50

534-536 PB L 70145 — HAUBOLD, C.G., A.G., CHEMNITZ. Device for guiding long strips of fabric for the purpose of winding them up evenly. Ger. patent 748 367, Nov 1, 1944. Application H 166 337 VII/8f dated Sep 23, 1941. Inventor: Hindermann. In German. 1.50

537-539 PB L 70145 — KOHLMANN, HERMANN (Inventor). Process and device for controlling the heat in apparati that are steam-heated and carry condensates. Ger. patent 748 371, Nov 1, 1944. Application K 164 081 IVa/12a dated Mar 21, 1942. In German. 1.50

540-541 PB L 70145 — FUCHS, OTTO (Inventor). Process for operating packed columns. Ger. patent 748 372, Nov 1, 1944. Application dated Jul 30, 1939. In German. 1.50

542-544 PB L 70145 — SAUTER, ERWIN (Inventor). Catalyst tube for reaction furnaces. Ger. patent 748 373, Nov 1, 1944. Application dated Apr 12, 1942. In German. 1.50

545-546 PB L 70145 — HECKEL, HEINRICH and HANISCH, FRANZ (Inventors). Process for the catalytic conversion of oxides of carbon to hydrocarbons of higher molecular weight by means of hydrogen. Ger. patent 748 374, Nov 1, 1944. Application dated Nov 8, 1938. In German. 1.50
Addition to patent 701 846.

547-548 PB L 70145 — ZERWECK, WERNER and SCHÜTZ, KARL (Inventors). Process for preparing condensation products. Ger. patent 748 375, Nov 2, 1944. Application dated Feb 5, 1939. In German. 1.50
A mixture of diazotizable amine and an aromatic compound of a specially defined nature is treated with nitric oxides.

549-550 PB L 70145 — SCHWANEBERG, HERBERT (Inventor). Process for preparing thiazole derivatives. Ger. patent 748 376, Nov 2, 1944. Application H 165 112 IVc/12p dated Apr 10, 1941. In German. 1.50

551-552 PB L 70145 — DIERICHS, ALFRED (Inventor). Process for recovering phenols from phenol-containing hydrocarbons (or hydrocarbon-containing phenols). Ger. patent 748 377, Nov 2, 1944. Application dated Sep 11, 1941. In German. 1.50

553-554 PB L 70145 — HILTNER, WERNER and DOTT, HANS (Inventors). Process for recovering resorcinol from phenol oils. Ger. patent 748 378, Nov 2, 1944. Application dated Mar 12, 1942. In German. 1.50

555-556 PB L 70145 — CHEMISCHE WERKE ALBERT, WIESBADEN. Emulsifying agents. Ger. patent 748 379, Nov 2, 1944. Application C 56 387 IVd/12s dated Mar 23, 1941. Inventors: Albert, Kurt and others. In German. 1.50
Viscous, colloidal solutions of "kurrol" salts are used.

557-558 PB L 70145 — ROLL, FRANZ (Inventor). High-grade white malleable cast iron. Ger. patent 748 381, Nov 2, 1944. Application M 151 307 VIa/18d dated Jul 6, 1941. In German. 1.50

559-560 PB L 70145 — (Source missing). Increasing the depolarizing effect of pyrolusite in galvanic elements. Ger. patent 748 384, Nov 2, 1944. Application D 87 732 IVb/21b dated May 9, 1942. In German. 1.50
Addition to patent 742 509.

561-563 PB L 70145 — (Source missing). Electrode for electric collectors. Ger. patent 748 385, Nov 2, 1944. Application R 107 128 IVb/21b dated Mar 12, 1940. In German. 1.50
Addition to patent 730 303.

564-566 PB L 70145 — (Source missing). Arrangement for operating at least two gas- or vapor-filled vacuum tubes that are connected in parallel. Ger. patent 748 387, Nov 2, 1944. Application L 106 633 VIIIc/21f dated Jan 28, 1942. In German. 1.50

567-569 PB L 70145 — FRIESS, RUDOLF (Inventor). Process for preparing hollow objects by means of electric butt-welding. Ger. patent 748 389, Nov 2, 1944. Application M 146 588 VIIIc/21h dated Dec 1, 1939. In German. 1.50

570-571 PB L 70145 — (Source missing). Electric resistance welding machine for welding seams that take alternatingly straight and curved courses. Ger. patent 748 390, Dec 6, 1944. Application w 111 008 VIIIc/21h dated May 15, 1942. In German. 1.50
Addition to patent 738 110.

572-573 PB L 70145 — (Source missing). Preparation of high-grade lamp black. Ger. patent 748 391, Nov 3, 1944. Application D 72 689 IVb/22f dated May 9, 1936. In German. 1.50
Addition to patent 667 119.

574-576 PB L 70145 — FRÄMBS & FREUDENBERG, SCHWEIDNITZ. Conveying device for broken bast fiber stalks in vibratory machines. Ger. patent 748 393, Nov 2, 1944. Application F 92 295 VII/29a dated Aug 15, 1942. Inventor: Läck. In German. 1.50

577-579 PB L 70145 — STARCKJOHANN, WALTER (Inventor). Cutting head for the cutting of skeins of continuous synthetic threads. Ger. patent 748 394, Nov 2, 1944. Application P 83 534 D VII/29a dated Dec 23, 1941. In German. 1.50

580-582 PB L 70145 — TORKE, ERICH and others (Inventors). Device for the continuous sulfidizing of alkali cellulose. Ger. patent 748 395, Nov 2, 1944. Application P 82 578 VII/29a dated May 29, 1941. In German. 1.50

583-584 PB L 70145 — WIRTH, JOSEF and HARRACH, WILHELM. Process for preparing fibers for spinning purposes from plants containing bast fibers. Ger. patent 748 397, Nov 3, 1944. Application W 108 975 IVc/29b dated Apr 27, 1941. Inventor: Wirth. In German. 1.50

585-587 PB L 70145 — SACK, KARL (Inventor). Process and device for lining bearing bushes and pieces of steel pipe with slide bearing metal. Ger. patent 748 399, Nov 2, 1944. Application S 153 457 VIa/31c dated Dec 30, 1942. In German. 1.50
Addition to patent 692 783.

588-590 PB L 70145 — (Source missing). Lining plate consisting of artificial stone. Ger. patent 748 401, Nov 2, 1944. Application D 79 802 V/37b dated Feb 4, 1939. In German. 1.50

591-592 PB L 70145 — DOEHLER, HERMANN (Inventor). Process for preparing insulating materials from synthetic resin foam and natural binding agents. Ger. patent 748 402, Nov 3, 1944. Application K 159 424 IVc/39b dated Nov 30, 1940. In German. 1.50

593-595 PB L 70145 — (Source missing). Stand. Ger. patent 748 403, Nov 2, 1944. Application St 61 223 IXb/42c dated Nov 5, 1941. In German. 1.50
This stand is characterized by the utilization of the combined effect of lever and spring.

596-598 PB L 70145 — (Source missing). Fuel gauge. Ger. patent 748 404, Nov 2, 1944. Application L 95 232 IXb/42e dated Jul 23, 1938. In German. 1.50

599-601 PB L 70145 — (Source missing). Testing machine for performing endurance experiments. Ger. patent 748 406, Nov 2, 1944. Application I 69 469 IXb/42k dated Apr 27, 1941. In German. 1.50

602-606 PB L 70145 — (Source missing). Device for demonstrating and imitating electric processes. Ger. patent 748 407, Nov 2, 1944.

Application R 102 947 IXb/42n dated Jul 28, 1938. In German. 1.50

607-609 PB L 70145 MARTIN, CARLOTTO and PÄSSLER, EBERHARD (Inventors). Instrument for measuring maximum accelerations. Ger. patent 748 408, Nov 2, 1944. Application T 54 230 IXb/42o dated Sep 19, 1940. In German. 1.50

610-613 PB L 70145 BURKHARDT, ERNST (Inventor). Device for producing mechanical vibrations. Ger. patent 748 409, Nov 2, 1944. Application dated Mar 29, 1940. In German. 1.50

614-616 PB L 70145 THE NATIONAL CASH REGISTER COMPANY, DAYTON, OHIO. Printing appliance for bookkeeping machines, cash registers, or the like. Ger. patent 748 410, Nov 2, 1944. Application N 44 793 IX/43a dated Jun 8, 1941. In German. 1.50

617-619 PB L 70145 FOI, JOSEF (Inventor). Smoke tube with cylindrical tobacco space and with a coaxial smoke channel. Ger. patent 748 411, Nov 2, 1944. Application F 93 307 X/44b dated Feb 9, 1943. In German. 1.50
This invention pertains to a tobacco pipe.

620-622 PB L 70145 OTT, WILHELM (Inventor). Seed disinfecting machine for brief-web or dry disinfection. Ger. patent 748 412, Nov 2, 1944. Application O 24 049 III/45b dated Feb 28, 1939. In German. 1.50

623-624 PB L 70145 (Source missing). Means for combating harmful fungi in living plants. Ger. patent 748 413, Nov 3, 1944. Application I 69 327 IVa/451 dated Apr 10, 1941. In German. 1.50

625-627 PB L 70145 (Source missing). Two-cycle internal combustion engine which condenses the fuel mixture. Ger. patent 748 415, Nov 2, 1944. Application H 152 083 Ia/46a^2 dated Jun 24, 1937. In German. 1.50

628-630 PB L 70145 BENZ, WALTER (Inventor). Rotatory vibration muffler. Ger. patent 748 416, Nov 2, 1944. Application K 165 839 Ia/46a^{11} dated Sep 10, 1942. In German. 1.50
This is a muffler for internal combustion engines characterized by performing rotary vibrations.

631-633 PB L 70145 HESSENWERK RUDOLPH MAJERT G.M.B.H., KASSEL. Heat exchanger heated with exhaust gases, for the preheating of liquid gas. Ger. patent 748 417, Jun 21, 1944. Application H 168 302 Ia/46c^2 dated May 9, 1942. Inventor: Petry. In German. 1.50
Addition to patent 736 630.

634-636 PB L 70145 KLOPF, WILHELM (Inventor). Joining link for V belts having flexible cover plates. Ger. patent 748 418, Nov 2, 1944. Application M 156 191 XII/47d dated Dec 12, 1942. In German. 1.50

637-639 PB L 70145 FIRMA J. M. VOITH, HEIDENHEIM, BRENZ. Machine for the longitudinal cutting of rolls. Ger. patent 748 423, Nov 2, 1944. Application V 36 213 VII/55e dated Oct 7, 1939. Inventor: Bauer. In German. 1.50

640-642 PB L 70145 ZELLSTOFF-FABRIK WALDHOF, MANNHEIM. Process for increasing the strength of sheet material containing cellulose. Ger. patent 748 424, Nov 3, 1944. Application Z 25 375 IVc/55f dated Jul 11, 1939. Inventor: Jayme. In German. 1.50

643-645 PB L 70145 GOLDHAMMER, LEO (Inventor). Grapple, particularly for motion-picture appliances. Ger. patent 748 426, Nov 2, 1944. Application dated Jan 11, 1941. In German. 1.50

646-648 PB L 70145 (Source missing). Process for restoring photographic pictures. Ger. patent 748 427, Nov 2, 1944. Application E 54 088 IVa/57b dated Oct 22, 1940. In German. 1.50

649-650 PB L 70145 (Source missing). Products resistant to lost gas. Ger. patent 748 428, Jul 29, 1944. Application D 73 396 IVb/61b dated Aug 30, 1936. In German. 1.50
Carrier materials (such as fabrics or paper) treated with alkaline solutions of leather, which contain leather fibers, are used.

651-652 PB L 70145 CHEMOPHARM G.M.B.H., BERLIN. Washing and cleaning agents. Ger. patent 748 480, Jul 21, 1944. Application C 56 454 IVd/81 dated Apr 22, 1941. Inventor: Bayer. In German. 1.50

653-654 PB L 70145 (Source missing). Carbon dioxide absorbing material, especially for cartridges used in gas masks. Ger. patent 748 420, Nov 3, 1944. Application D 82 783 IVb/61b dated Jun 15, 1940. In German. 1.50

655-657 PB L 70145 (Source missing). Streamlined blister, particularly on the fuselage of an aircraft. Ger. patent 748 430, Nov 2, 1944. Application dated Oct 2, 1940. In German. 1.50

658-660 PB L 70145 BACHEM, ERNST (Inventor). Control for a slot set on spars. Ger. patent 748 431, Nov 2, 1944. Application F 90 230 XI/62b dated Jul 8, 1941. In German. 1.50

661-663 PB L 70145 (Source missing). Suction wing or control surface unit. Ger. patent 748 432, Nov 2, 1944. Application M 149 454 XI/62b dated Dec 18, 1940. In German. 1.50

664-666 PB L 70145 (Source missing). Fin adjusting device for elevator units of aircraft. Ger. patent 748 433, Nov 2, 1944. Application K 162 624 XI/62b dated Jul 3, 1940. In German. 1.50

667-669 PB L 70145 BALUFF, HELLMUT (Inventor). Snap-lock, especially for inspection plates on aircraft. Ger. patent 748 434, Nov 2, 1944. Application S 150 340 XI/62b dated May 12, 1942. In German. 1.50

670-672 PB L 70145 KÖSTER, PAUL-EDUARD (Inventor). Aerial navigation device. Ger. patent 748 435, Nov 2, 1944.

Application L 106 706 XI/62c dated Feb 1, 1942. In German. 1.50

673-675 PB L 70145 HERMANN, HUGO (Inventor). Spring suspension for motorized vehicles, especially for track-laying vehicles. Ger. patent 748 437, Dec 7, 1944. Application P 85 100 II/63c dated Nov 10, 1942. In German. 1.50

676-678 PB L 70145 (Source missing). Device for holding the cartridges for fire-arms provided with a revolving magazine. Ger. patent 748 439. Application L 106 145 XI/72a dated Dec 5, 1941. In German. 1.50

679-681 PB L 70145 BOSCH, ROBERT, G.M.B.H., STUTTGART. Spray-gun for paints. Ger. patent 748 442, Nov 2, 1944. Application B 186 429 IVc/75c dated Feb 24, 1939. Inventors: Klett and Häberle. In German. 1.50
Addition to patent 688 712.

682-684 PB L 70145 SCHILLING, HEINRICH (Inventor). Device for the strapless fastening of skis to the boots. Ger. patent 748 443, Nov 2, 1944. Application Sch 123 834 XI/77b dated Dec 18, 1941. In German. 1.50

685-686 PB L 70145 (Source missing). Process for increasing the adhesion of cement to pressure-resistant, nonporous admixture rock in concrete. Ger. patent 748 444, Nov 3, 1944. Application Sch 126 168 VIb/80b dated Nov 19, 1942. In German. 1.50

687-689 PB L 70145 LUTKE, FRITZ (Inventor). Arrangement for measuring small time lags by means of saw-tooth oscillator. Ger. patent 748 445, Nov 23, 1944. Application D 82 668 IKb/83d dated May 26, 1940. In German. 1.50

690-695 PB L 70145 WILIRODT, HANS (Inventor). Dredge provided with a deep scoop. Ger. patent 748 446, Nov 2, 1944. Application M 149 380 V/84d dated Dec 10, 1940. In German. 1.50

695-697 PB L 70145 (Source missing). Process and device for distilling liquids (particularly alcoholic) in the vacuum. Ger. patent 748 447, Nov 2, 1944. Application I 71 950 IVa/6b dated Apr 1, 1942. In German. 1.50
Two frames carry the same number 695.

698-700 PB L 70145 GEBR. POENSGEN A.G., DÜSSELDORF. Washing machine for woolen fabrics. Ger. patent 748 448, Nov 2, 1944. Application P 81 654 VII/8d dated Dec 7, 1940. Inventors: Krischer, Fritz and others. In German. 1.50

701-704 PB L 70145 BEHRINGER, H. (Inventor). Process for performing isobaric thermodynamic cyclic processes. Ger. patent 748 453, Nov 2, 1944. Application dated Jul 20, 1940. In German. 1.50

705-707 PB L 70145 (Source missing). Purification of hydrofluoric acid containing silicic acid. Ger. patent 748 454, Nov 2, 1944. Application dated Dec 2, 1941. In German. 1.50

708-709 PB L 70145 (Source missing). Bin for ripening alkali cellulose. Ger. patent 748 455, Nov 3, 1944. Application dated Aug 7, 1941. In German. 1.50

710-711 PB L 70145 (Source missing). Method of purifying sulfonic acid prepared from sulfochlorination mixtures. Ger. patent 748 456, Nov 3, 1944. Application F 103 903 IVd/12o dated Apr 13, 1941. In German. 1.50

712-713 PB L 70145 (Source missing). Process for preparing ketones of 2-(β-pyridyl)-pyrroles. Ger. patent 748 459, Nov 3, 1944. Application T 54 335 IVc/12p dated Oct 9, 1940. In German. 1.50

714-715 PB L 70145 (Source missing). Process for purifying lactams. Ger. patent 748 460, Nov 3, 1944. Application D 86 188 IVc/12p dated Oct 26, 1941. In German. 1.50

716-717 PB L 70145 MAIER, JOSEF (Inventor). Process for working up medium temperature lignite tar containing asphalt and dust and being low in hydrogen, and low temperature lignite tar rich in hydrogen and containing paraffin. Ger. patent 748 461, Nov 3, 1944. Application B 194 886 IVd/12r dated Jul 11, 1941. In German. 1.50

718-719 PB L 70145 HENNICKE, WILLIAM (Inventor). Process for improving powdery pressure extracts of coal. Ger. patent 748 463, Nov 3, 1944. Application dated Sep 21, 1937. In German. 1.50

720-722 PB L 70145 (Source missing). Gate valve for hot flow media the blast main of blast heaters. Ger. patent 748 465, Nov 2, 1944. Application Z 26 222 VIa/18a dated Jan 26, 1941. In German. 1.50

723-725 PB L 70145 (Source missing). Process for making tubular conductor cables with seamed aluminum alloy jackets and tubular conductors. Ger. patent 748 468, Nov 3, 1944. Application O 24 221 VIIIb/21c dated Jul 6, 1939. In German. 1.50

726-729 PB L 70145 (Source missing). Device for controlling several electric resistance machines (particularly spot or seam welding machines) which work intermittently and are connected to the same network. Ger. patent 748 471, Nov 3, 1944. Application M 138 553 VIIIc/21h dated Jul 7, 1937. In German. 1.50

730-731 PB L 70145 (Source missing). Electric arc welding rod of iron or steel which is sensitive to sulfur, covered with a slag-forming outer layer, and process for its production. Ger. patent 748 472, Nov 3, 1944. Application M 43 054 VIIIc/21h dated Mar 11, 1930. In German. 1.50

732-733 PB L 70145 (Source missing). Process for preparing monoazo dyes insoluble in water. Ger. patent 748 473, Nov 3, 1944. Application G 94 434 IVd/22a dated Dec 22, 1936. In German. 1.50

734-735 PB L 70145 (Source missing). Process for preparing water-soluble dyes. Ger. patent 748 474, Nov 3, 1944. Application G 99 032 IVd/22a dated Oct 21, 1937. In German. 1.50

736-737 PB L 70145 MATTHAEUS, GEORG (Inventor). Process for preparing diazo dyes. Ger. patent 748 475, Nov 3, 1944. Application dated Oct 30, 1937. In German. 1.50
Addition to patent 726 154.

738-740 PB L 70145 BOREL, JEAN (Inventor). Lacquer. Ger. patent 748 477, Nov 3, 1944. Application S 145 188 IVc/22h dated May 3, 1941. In German. 1.50
A baking lacquer for metals is described.

741-742 PB L 70145 KAUFMANN, HERMANN and others (Inventors). Residues obtained from the pressure hydrogenation of coal extracts to be used as raw materials for solid lubricants and salves. Ger. patent 748 479, Nov 3, 1944. Application dated Aug 21, 1937. In German. 1.50

743-745 PB L 70145 (Source missing). Device for separating and recovering oil from liquids, especially wash liquors. Ger. patent 748 480, Nov 3, 1944. Application V 39 384 IVd/23c dated Nov 22, 1942. In German. 1.50

746-748 PB L 70145 LOEMKE, HEINRICH (Inventor). Arrangement of coal hopper for feeding through-grate furnaces. Ger. patent 748 481, Nov 3, 1944. Application F 89 413 V/24a dated Feb 1, 1941. In German. 1.50

749-750 PB L 70145 ISENDAHL, HERBERT (Inventor). Gas generator in which the gas is sucked off from the gasification shaft above the fuel zone. Ger. patent 748 482, Nov 3, 1944. Application W 109 328 V/24e dated Jul 15, 1941. In German. 1.50

751-752 PB L 70145 IWAMAE, HIROMU (Inventor). Process for preparing artificially shaped objects, such as fibers, from vegetable proteins. Ger. patent 748 483, Nov 13, 1944. Application I 65 201 IVc/29h dated Jul 20, 1939. In German. 1.50

753-755 PB L 70145 ULRICH, HEINRICH C., ULM, DONAU. Wire-insertion appliance for use in the extension treatment of bone fractures. Ger. patent 748 484, Nov 3, 1944. Application U 15 656 Xa/30a dated Apr 24, 1942. Inventor: Kirschner. In German. 1.50

756-758 PB L 70145 DANZEISEN, EMIL. Truss pad adjustable in height, for use in inguinal hernia. Ger. patent 748 485, Nov 3, 1944. Application D 91 198 IXa/30d dated Jul 15, 1943. In German. 1.50

759-760 PB L 70145 SCHLECHTER, HANS (Inventor). Process for obtaining immunizing substances from microorganisms by means of supersonic waves. Ger. patent 748 486, Nov 4, 1944. Application Sch 123 678 IVa/30h dated Nov 26, 1941. In German. 1.50

761-762 PB L 70145 LOHMANN K.G., FAHR, RHEIN. Process for preparing adhesive impregnations on carrier materials especially for medical purposes. Ger. patent 748 487, May 30, 1944. Application L 106 039 IVa/30h dated Nov 25, 1941. Inventor: Salditt. In German. 1.50

763-765 PB L 70145 BÖRNER, RUDOLF (Inventor). Deck-chair. Ger. patent 748 488, Nov 3, 1944. Application B 198 362 XI/34g dated May 24, 1942. In German. 1.50

766-768 PB L 70145 FA. A. W. FABER-CASTELL, STEIN B. NÜRNBERG. Rack in which stationery is kept ready for sale. Ger. patent 748 489, Nov 3, 1944. Application F 88 854 X/34 1 dated Sep 25, 1940. Inventors: Rupprecht and Hammann. In German. 1.50

769-770 PB L 70145 KETTMANN, GUSTAV and ACKERMANN, KARL (Inventors). Process for removing from the surface of precipitation electrophoretically enriched aqueous dispersions of high polymeric substances. Ger. patent 748 490, Nov 4, 1944. Application dated May 14, 1939. In German. 1.50

771-772 PB L 70145 SCHERER, HANS (Inventor). Plasticizer for synthetic rubber. Ger. patent 748 491, Nov 8, 1944. Application R 114 944 IVc/39b dated Jan 21, 1942. In German. 1.50

773-774 PB L 70145 (Source missing). Process for preparing pitch- or resin-like condensation products from coal tar, its fractions or single constituents, and acetylene. Ger. patent 748 492, Nov 4, 1944. Application D 81 830 IVc/39c dated Feb 19, 1935. In German. 1.50

775-776 PB L 70145 (Source missing). Process for obtaining iron and titanium compounds from ore or rock. Ger. patent 748 493, Nov 4, 1944. Application Sch 113 193 VIa/40a dated Jun 29, 1937. In German. 1.50

777-778 PB L 70145 DAWIHL, WALTER (Inventor). Process for producing molded bodies from powdery aluminum or aluminum alloys. Ger. patent 748 494, Nov 4, 1944. Application P 83 509 VIa/40b dated Jan 9, 1942. In German. 1.50

779-780 PB L 70145 FRÖHLICH, KARL WILH. and BARTEL, AUGUST (Inventors). Platinum alloy. Ger. patent 748 495, Nov 14, 1944. Application S 142 204 VIa/40b dated Sep 10, 1940. In German. 1.50

781-782 PB L 70145 (Source missing). Process for manufacturing profile gauges. Ger. patent 748 496, Nov 4, 1944. Application M 150 737 IXb/42b dated May 7, 1941. In German. 1.50

783-785 PB L 70145 LAMLA, ERNST (Inventor). Interference instrument. Ger. patent 748 497, Nov 3, 1944. Application D 85 000 IXa/42h dated May 7, 1941. In German. 1.50
The arrangement of the two strips examined for interference and the two mirrors used for the examination are described.

786-788 PB L 70145 HEYMANN, OTTO (Inventor). Device for determining the resistance of an armor-plate or the like to bombardment or explosion. Ger.

patent 748 498, Nov 16, 1944. Application dated Dec 14, 1939. In German. 1.50

789-791 PB L 70145 NAUMANN, ALFRED (Inventor). Arrangement for the thermomagnetic gas analysis by the hot wire procedure, especially for the determination of oxygen. Ger. patent 748 499, Nov 16, 1944. Application dated Mar 11, 1943. In German. 1.50

792-796 PB L 70145 HAMANN, CHRISTEL (Inventor). Calculating machine with "remembering device." Ger. patent 748 500, Nov 3, 1944. Application D 83 603 IXb/42m dated Oct 23, 1940. In German. 1.50

797-800 PB L 70145 (Source missing). Symbol printing device for adding machines, printing calculating machines or similar machines. Ger. patent 748 501, Nov 3, 1944. Application M 137 103 IXb/42m dated Feb 7, 1937. In German. 1.50

801-803 PB L 70145 (Source missing). Device for stopping the slide carriage at the ends of its guiding piece especially on calculating machines. Ger. patent 748 502, Nov 3, 1944. Application M 147 230 IXb/42m dated Mar 5, 1940. In German. 1.50

804-807 PB L 70145 RAUSCHER, ANTON (Inventor). Decompression device operated by a starter, for internal combustion engines. Ger. patent 748 505, Nov 3, 1944. Application F 92 110 Ia/40b[1] dated Jul 14, 1942. In German. 1.50

808-809 PB L 70145 (Source missing). Working surfaces for valve cones of internal combustion engines, and for similar metallic machine parts. Ger. patent 748 506, Nov 4, 1944. Application M 145 695 Ia/46c[1] dated Jul 27, 1939. In German. 1.50

810-812 PB L 70145 (Source missing). Device for saving fuel in carburetor internal combustion engines. Ger. patent 748 507, Nov 3, 1944. Application St 60757 Ia/46c[3] dated May 24, 1941. In German. 1.50

813-815 PB L 70145 (Source missing). Installation for controlling the volume of several fuel pumps of an internal combustion engine which are interconnected. Ger. patent 748 508, Nov 3, 1944. Application dated Sep 2, 1938. In German. 1.50

816-817 PB L 70145 THIEME, PAUL (Inventor). Process for applying a heavy metal costing on an aluminum conductor by spraying. Ger. patent 748 509, Nov 4, 1944. Application L 100 914 VIa/48b dated May 26, 1940. In German. 1.50

818-819 PB L 70145 SCHERING A.G., BERLIN. Ensilage of green fodder in ditches. Ger. patent 748 510, Nov 4, 1944 Application Sch 120 426 IVb/53g dated May 15, 1940. In German. 1.50

820-823 PB L 70145 FELDMÜHLE PAPIER UND ZELLSTOFFWERKE A.G., BERLIN. Process for preparing cellulose from potato stalks. Ger. patent 748 513, Nov 4, 1944. Application F 90 518 IVb/55b dated Sep 13, 1941. Inventors: Schütz, Frans and others. In German. 1.50

824-825 PB L 70145 KUNZE, WALTHER (Inventor). Process for concentrating sulfite waste liquor by use of cold or slightly warm gaseous media like air that are moved systematically. Ger. patent 748 514, Nov 6, 1944. Application K 153 848 IVb/55b dated Mar 15, 1939. In German. 1.50

826-827 PB L 70145 EGGERT, JOHANN WALTER (Inventor). Process for improving chemically decomposed cellulose. Ger. patent 748 515, Nov 6, 1944. Application E 52 375 IVb/55b dated Mar 28, 1939. In German. 1.50

828-830 PB L 70145 STRÜBIG, HEINRICH and HASS, WALTER (Inventors). Luminescent screen for cathode-ray tubes. Ger. patent 748 517, Nov 3, 1944. Application F 87 950 IVa/57b dated Feb 11, 1940. In German. 1.50

831-833 PB L 70145 KRANNER, GUSTAV and SCHREMBS, KARL (Inventors). Process for the photomechanical change, correction or completion of copies, particularly partial color negatives. Ger. patent 748 520, Nov 3, 1944. Application I 73 228 IVa/57d dated Sep 26, 1942. In German. 1.50

834-836 PB L 70145 SCHUSTER, FRANZ (Inventor). Installation for optional raising of water from an artesian well, by means of a submerged pump or a hand deep plunger pump, through the same ascending tube. Ger. patent 748 521, Nov 3, 1944. Application R 115 397 Ia/59a dated Feb 20, 1943. In German. 1.50

837-839 PB L 70145 (Source missing). Grinding and polishing device, especially for making grindings for examining purposes and the like. Ger. patent 748 522, Nov 3, 1944. Application W 111 214 XII/67a dated Jun 26, 1942. In German. 1.50

840-842 PB L 70145 (Source missing). Aiming and adjusting device for subcaliber practice firing guns for traverse and elevation fire from -80° to +90°. Ger. patent 748 523, Nov 3, 1944. Application Sch 127 581 XI/72f dated Jun 12, 1943. In German. 1.50

843-845 PB L 70145 (Source missing). Device for feeding the coal to twin extrusion presses for the briquetting of brown coal. Ger. patent 748 524, Nov 3, 1944. Application K 162 652 VIb/80a dated Nov 4, 1941. In German. 1.50

847-850 PB L 70145 NEUPERTZ, BERNHARD (Inventor). Small container for eggs. Ger. patent 748 527, Nov 3, 1944. Application N 43 729 XII/81c dated Dec 13, 1939. In German. 1.50

No. 846 does not exist.

851-853 PB L 70145 MICHELUZZI, MARIO. Refuse cart with screw conveyor. Ger. patent 748 528, Nov 3, 1944. Application M 134 617 XI/81d dated May 26, 1936. In German. 1.50

854-856 PB L 70145 — STOCK, JOST (Inventor). Transportable screw conveyor. Ger. patent 748 527, Nov 3, 1944. Application St 61 605 XI/81e dated Mar 4, 1942. In German. 1.50

857-859 PB L 70145 — (Source missing). Fermentation of liquids (poor in sugar) to alcohol. Ger. patent 748 531, Nov 3, 1944. Application M 147 444 IVa/6b dated Mar 28, 1940. In German. 1.50

860-864 PB L 70145 — ALLGEMEINE ELEKTRIZITÄTS-GESELLSCHAFT, BERLIN. Ironing machine provided with rotating roll and ironing shoe that can be lifted as well as pressed on. Ger. patent 748 532, Nov 4, 1944. Application A 95 114 VII/8d dated Dec 19, 1939. Inventor: Dunham. In German. 1.50
Addition to patent 693 981.

865-866 PB L 70145 — (Source missing). Many times folded index card made of paper. Ger. patent 748 534, Nov 4, 1944. Application W 109 535 XII/11e dated Aug 28, 1941. In German. 1.50

867-869 PB L 70145 — ENGELHARDT, ALFRED (Inventor). Process for regenerating adsorbents that were used for the recovery of carbon disulfide from gases containing oxygen. Ger. patent 748 535, Nov 6, 1944. Application L 104 916 IVb/12e dated Jul 19, 1941. In German. 1.50

869-870 PB L 70145 — (Source missing). Process for extracting aqueous fatty acids such as acetic acid. Ger. patent 748 536, Nov 6, 1944. Application D 78 112 IVd/12o dated Jun 3, 1938. In German. 1.50

871-872 PB L 70145 — (Source missing). Process for preparing the amides of heterocyclically substituted acetic acids or the free acids. Ger. patent 748 539, Nov 6, 1944. Application G 104 171 IVc/12p dated Oct 4, 1941. In German. 1.50

873-874 PB L 70145 — ANDERSAG, HANS (Inventor). Process for preparing condensation products containing a pyridine ring. Ger. patent 748 540, Nov 6, 1944. Application dated Apr 4, 1941. In German. 1.50

875-876 PB L 70145 — SCHMELZER, ALBERT (Inventor). Process for preparing chlorinated 3,6-dinitrocarbazoles. Ger. patent 748 541, Nov 6, 1944. Application dated Apr 23, 1941. In German. 1.50

877-878 PB L 70145 — KEIL, FRIEDRICH and ROSE, HORST (Inventors). Process for preparing a,a-dihalogen lactams. Ger. patent 748 542, Nov 17, 1944. Application T 56 194 Wc/12p dated Sep 16, 1941. In German. 1.50

879-880 PB L 70145 — (Source missing). Process for preparing quaternary ammonium compounds. Ger. patent 748 543. Application dated Nov 17, 1935. In German. 1.50
Addition to patent 713 276.

881-883 PB L 70145 — JÜNGST, JOSEF (Inventor). Dump truck hoist with deflected lower track, especially for blast furnaces and the like. Ger. patent 748 545, Nov 4, 1944. Application K 162220 VIa/18a dated Sep 14, 1941. In German. 1.50

884-885 PB L 70145 — (Source missing). Steel for producing objects which are exposed to the attack of certain hydrocarbons. Ger. patent 748 546, Nov 6, 1944. Application V 160 781 IVa/18b dated Apr 10, 1941. In German. 1.50

886-888 PB L 70145 — NAUMANN, WILHELM (Inventor). Cam shaft switch. Ger. patent 748 549, Nov 4, 1944. Application St 60 345 VIIIb/21c dated Dec 29, 1940. In German. 1.50

889-891 PB L 70145 — REINKER, GERALD E. (Inventor). Base for electric lamps and vacuum tubes in which the metal parts are joined by an insulating glass body. Ger. patent 748 550, Jul 21, 1944. Application P 78 284 VIIIc/21f dated Dec 1, 1938. In German. 1.50

892-895 PB L 70145 — (Source missing). Switch board for a roentgenographic installation. Ger. patent 748 552, Nov 25, 1944. Application dated Nov 25, 1941. In German. 1.50

896-897 PB L 70145 — (Source missing). Process for preparing new derivatives of dyes that are either difficultly soluble or insoluble and contain at least one hydroxyl group. Ger. patent 748 553, Nov 6, 1944. Application G 93 589 IVd/22b dated Aug 22, 1936. In German. 1.50
Addition to patent 727 607.

898-900 PB L 70145 — (Source missing). Extraction of wood rich in resin. Ger. patent 748 555, Nov 7, 1944. Application H 163 104 IVc/22h dated Sep 5, 1940. In German. 1.50

901-902 PB L 70145 — (Source missing). Adhesive. Ger. patent 748 557, Nov 6, 1944. Application K 155 926 IVd/22i dated Nov 4, 1939. In German. 1.50
Addition to patent 716 221. This adhesive material contains among other constituents a cellulose derivative insoluble in water and soluble in an alkaline solution.

903-905 PB L 70145 — BLÜTCHEN, W., & SÖHNE, VETSCHAU, SPREEN. Movable machine for the receiving, turning and resetting of flax stalks during the retting process. Ger. patent 748 560, Nov 4, 1944. Application B 194 578 VII/29a dated Jun 12, 1941. In German. 1.50

906-907 PB L 70145 — SCHIEBER, WALTHER and HARZ, WALTER (Inventors). Process for preparing artificially shaped materials from polysterene. Ger. patent 748 562, Nov 6, 1944. Application I 52 135 IVc/29b dated Apr 14, 1935. In German. 1.50

908-909 PB L 70145 — CHEMISCHE FABRIK JOH. A. BENCKISER G.M.B.H., LUDWIGSHAFEN, RHEIN. Cosmetics. Ger. patent 748 563, Nov 6, 1944. Application

C 54 517 IVa/30h dated Nov 10, 1938. Inventor: Riess. In German. 1.50

910-911 PB L 70145 CHEMISCHE FABRIK GRÜNAU A.G., BERLIN. Detergent for cosmetic purposes. Ger. patent 748 564, Nov 6, 1944. Application C 55 859 Wa/30h dated Jun 15, 1940. Inventors: Geiler and Wiegand. In German. 1.50

912-913 PB L 70145 WEIDNER, EDMUND (Inventor). Concentrated disinfectant. Ger. patent 748 565, Nov 6, 1944. Application W 106 144 IVa/30i dated Aug 3, 1939. In German. 1.50

914-917 PB L 70145 (Source missing). Process and device for making compound castings. Ger. patent 748 566, Nov 4, 1944. Application K 154 354 VIa/31c dated May 9, 1939. In German. 1.50

918-919 PB L 70145 DEUTSCHE SOLVAY-WERKE A.G., ZWEIGNIEDERLASSUNG ALKALIWERKE WESTEREGELN, WESTEREGELN, BZ. MAGDEBURG. Protective agents for wood and fibers. Ger. patent 748 568, Nov 6, 1944. Application D 83 042 IVd/38h dated Jul 30, 1940. Inventor: Rössler. In German. 1.50

920-922 PB L 70145 (Source missing). Process for preparing water-soluble resin-like condensation products from urea and formaldehyde. Ger. patent 748 570, Nov 6, 1944. Application B 189 021 IVc/39c dated Nov 7, 1939. In German. 1.50

923-924 PB L 70145 UNGER, WALTER (Inventor). Combination spiral and drawing compass. Ger. patent 748 571, Nov 4, 1944. Application U 15691 IXb/42d dated Jun 21, 1942. In German. 1.50

925-929 PB L 70149 (Source missing). Magnetic compass the needle of which is kept moving around a mean position. Ger. patent 748 572, Nov 4, 1944. Application S 136 893 IXb/42c dated Apr 28, 1939. In German. 1.50

930-932 PB L 70145 (Source missing). Swinging diaphragm. Ger. patent 748 574, Aug 23, 1944. Application W 109 379 IXa/42h dated Jul 29, 1941. In German. 1.50

933-935 PB L 70145 (Source missing). Contact lenses. Ger. patent 748 575, Nov 4, 1944. Application F 91 363 IXa/42h dated Mar 3, 1942. In German. 1.50

936-937 PB L 70145 (Source missing). Contact lenses. Ger. patent 748 576, Nov 4, 1944. Application F 93 078 IXa/42h dated Dec 24, 1942. In German. 1.50
Addition to patent 748 575.

938-940 PB L 70145 (Source missing). Device for counterbalancing a ship or airplane propeller. Ger. patent 748 577, Nov 4, 1944. Application H 168 439 IXb/42k dated May 19, 1942. In German. 1.50

941-943 PB L 70145 (Source missing). Piston for two cycle motors. Ger. patent 748 579, Nov 4, 1944. Application W 107 403 Ia/46c[1] dated Jun 22, 1940. In German. 1.50

944-946 PB L 70145 LINKS, HEINZ (Inventor). Injection nozzle for internal combustion engines. Ger. patent 748 580, Nov 4, 1944. Application dated Aug 27, 1940. In German. 1.50

947-949 PB L 70145 (Source missing). Process and device for manufacturing vulcanized hook-shaped lacing devices for conveyors and belts. Ger. patent 748 581, Nov 4, 1944. Application dated Jul 18, 1937. In German. 1.50

950-952 PB L 70145 (Source missing). Sheet-metal cap which can be put, by axial pressure, upon projecting parts of a hollow chain bolt. Ger. patent 748 582, Nov 4, 1944. Application H 163 874 XII/47d dated Nov 27, 1940. In German. 1.50

953-955 PB L 70145 (Source missing). Lubricating gun provided with a high pressure cylinder working against spring pressure. Ger. patent 748 583, Nov 4, 1944. Application D 86 043 XII/47e dated Dec 15, 1938. In German. 1.50

956-957 PB L 70145 (Source missing). Process for manufacturing searchlight mirrors having a high-polish coating of zinc, and a base of steel. Ger. patent 748 585, Nov 6, 1944. Application B 196 863 VIa/48a dated Jan 24, 1942. In German. 1.50

958-961 PB L 70145 DEUTSCHE NILES WERKE A.G., BERLIN. Use of a grinding screw constructed like a 90° involute screw, for grinding spur wheels. Ger. patent 748 586, Nov 17, 1944. Application N 42 745 Ib/49d dated Dec 13, 1938. Inventor: Niessen. In German. 1.50

962-963 PB L 70145 DEUTSCHE NILES WERKE A.G., BERLIN. Method of aligning screw-shaped grinding tools. Ger. patent 748 587, Nov 6, 1944. Application N 42 707 Ib/49d dated Dec 4, 1938. Inventor: Niessen. In German. 1.50

964-967 PB L 70145 ANSCHÜTZ, WALTER (Inventor). Space arrangement of the usual machines for the manufacture of ready-to-wear clothing. Ger. patent 748 588, Nov 4, 1944. Application A 95 070 VII/52a dated Feb 21, 1942. In German. 1.50
Addition to patent 746 956.

968-969 PB L 70146 ZWITTERSTOCKS A.G., ALTENBERG, RHEINLAND. Process for preparing a filler for paper, cardboard or other fibrous materials. Ger. patent 748 593, Nov 6, 1944. Application Z 24417 IVb/55c dated Feb 20, 1938. Inventors: Bäumert, Paul August Franz and others. In German. 1.50

970-972 PB L 70145 DÖRRIS, O., A.G., VORM. MASCHINENFABRIK BANNING & LEYBOLD, DÜREN. Drive for hollander. Ger. patent 748 594, Nov 4, 1944. Application M 150 438 VII/55c dated Apr 1, 1941. In German. 1.50
Addition to patent 731 499.

973-974 PB L 70145 (Source missing). Process for manufacturing homogeneous luminescent screens. Ger. patent 748 596, Nov 4, 1944. Applica-

tion F 88 900 IVa/57b dated Oct 11, 1940. In German. 1.50

975-977 PB L 70145 PELISSIER, A., HACHPOLIER MASCHINENFABRIK, HANAU. Control for hydraulic presses. Ger. patent 748 597, Nov 4, 1944. Application P 82 207 Ib/58a dated Mar 21, 1941. In German. 1.50

978-980 PB L 70146 SAUER, RUDOLF (Inventor). Membrane controlled oxygen inlet valve for respirators. Ger. patent 748 598, Nov 4, 1944. Application A 89 835 V/61a dated Jul 9, 1939. In German. 1.50

981-982 PB L 70145 THONNESSEN, KARL (Inventor). Process for extinguishing fires caused by magnesium or magnesium-containing alloys or the like. Ger. patent 748 599, Nov 7, 1944. Application dated Jun 30, 1940. In German. 1.50

983-985 PB L 70145 (Source missing). Swinging air pump installed on the frame of a bicycle. Ger. patent 748 600, Nov 6, 1944. Application E 55 895 II/63e dated Mar 17, 1942. In German. 1.50

986-988 PB L 70145 (Source missing). Buoy with telephone cable. Ger. patent 748 601, Nov 6, 1944. Application D 86 917 XI/65a² dated Feb 3, 1942. In German. 1.50

989-991 PB L 70145 (Source missing). Device for the idling of mining and drilling machines. Ger. patent 748 603, Nov 6, 1944. Application D 84 334 VIb/5b dated Feb 9, 1941. In German. 1.50

992-993 PB L 70145 (Source missing). Process for recovering coke and hydrocarbons from suspensions of bituminous coal. Ger. patent 748 604, Nov 7, 1944. Application B 171 754 IVd/12r dated Oct 13, 1935. In German. 1.50

994-995 PB L 70145 PRINZ, HANS (Inventor). Process for insulating electric conductors. Ger. patent 748 605, Nov 7, 1944. Application dated Dec 6, 1938. In German. 1.50

996-998 PB L 70145 (Source missing). Arrangement of ventilation channels in the active iron parts of electric machines, especially of channels having a large diameter. Ger. patent 748 606, Nov 8, 1944. Application M 139 268 VIIId/21d¹ dated Sep 21, 1937. In German. 1.50

999-1001 PB L 70145 (Source missing). Indoor heating system, consisting of a fan-type blower and a heating element installed within the air-current of the latter. Ger. patent 748 607, Nov 6, 1944. Application M 152 196 VIIIa/21h dated Jul 6, 1937. In German. 1.50

1002-1003 PB L 70145 LOHMANN K.-G., FAHR, RHEIN. Process for manufacturing adhesive tapes, especially impregnated plasters. Ger. patent 748 608, Jun 21, 1941. Application L 106 118 IIa/30a dated Dec 2, 1941. Inventor: Selbitt. In German. 1.50

1004-1005 PB L 70145 (Source missing). Process for performing divisions by means of dividing machines. Ger. patent 748 609, Nov 7, 1944. Application F 109 538 IIb/42b dated Aug 29, 1941. In German. 1.50

1006-1008 PB L 70145 (Source missing). Gas suction device for automatic apparatus designed for determining oxygen residues in exhaust gases of furnaces. Ger. patent 748 610, Nov 6, 1944. Application H 155 977 IXb/42 l dated May 31, 1938. In German. 1.50

1009-1011 PB L 70145 HINKEL, HEINZ (Inventor). Small knock-down organ. Ger. patent 748 611, Nov 6, 1944. Application H 154 866 IIa/57a dated Feb 20, 1938. In German. 1.50

1012-1019 PB L 70145 (Source missing). Device for power tuning of a receiver, particularly of a signaling mechanism. Ger. patent 748 612, Nov 6, 1944. Application dated Aug 20, 1936. In German. 1.50

1020-1022 PB L 70145 (Source missing). Installation for underwater sound systems on ships for determining definite ranges attainable. Ger. patent 748 613, Nov 6, 1944. Application A 83 028 VIIIb/74d dated May 23, 1937. In German. 1.50

1023-1024 PB L 70145 (Source missing). Liquefaction of cement raw sludge. Ger. patent 748 614, Nov 7, 1944. Application dated Feb 8, 1941. In German. 1.50

1025-1026 PB L 70145 WALTHER, CARL (Inventor). Process for preparing a separating agent for baking purposes. Ger. patent 748 615, Nov 7, 1944. Application F 107 092 IVa/2c dated Apr 12, 1940. In German. 1.50

1027-1028 PB L 70145 (Source missing). Process for the washing of cellulose fiber textiles dyes with substantive colors. Ger. patent 748 616, Nov 7, 1944. Application I 49 262 IVd/8i dated Mar 15, 1934. In German. 1.50

1029-1030 PB L 70145 DOSER, ARNOLD (Inventor). Detergent. Ger. patent 748 617, Nov 7, 1944. Application I 67 164 IVd/8i dated Jun 8, 1940. In German. 1.50
Addition to patent 745 555.

1031-1034 PB L 70145 GAEDE, WOLFGANG (Inventor). Distillation process. Ger. patent 748 618, Nov 4, 1944. Application G 100 868 VIa/12a dated Nov 2, 1939. In German. 1.50

1035-1037 PB L 70145 WACHTER, HANS (Inventor). Electro filter with reinforced casing wall. Ger. patent 748 619, Nov 6, 1944. Application dated Aug 26, 1938. In German. 1.50

1038-1039 PB L 70145 (Source missing). Process for brominating phenols and naphthols. Ger. patent 748 621, Nov 6, 1944. Application L 91 387 IVc/12g dated Nov 4, 1936. In German. 1.50

1040-1042 PB L 70145 (Source missing). Antenna trellis mast. Ger. patent 748 622, Nov 6, 1944. Application D 77 531 VIIIa/21a⁴ dated Mar 16, 1938. In German. 1.50

1043-1047 PB L 70145 — PAULI, FRITZ-JOSEF and others (Inventors). Device for determining the lengths of electric wires or defective places in high voltage overhead lines. Ger. patent 748 624, Nov 6, 1944. Application L 98 683 VIIId/21e dated Aug 2, 1939. In German. 1.50

1048-1051 PB L 70145 — KRAFFT, HERMANN and STAUTZEISTER, HUGO (Inventors). Process for manufacturing high pressure discharge lamps from quartz glass. Ger. patent 748 625, Nov 6, 1944. Application P 82 127 VIIIc/21f dated Mar 9, 1941. In German. 1.50

1051-1052 PB L 70145 — STOECKER, MAX (Inventor). Process for separating lamp black from gases containing lamp black. Ger. patent 748 626, Nov 7, 1944. Application D 79 674 IVb/22f dated Jan 13, 1939. In German. 1.50

1053-1054 PB L 70145 — REVERAY, GUSTAV and NAKENHUT, ALFRED (Inventors). Preparation of durable zinc sulfide phosphors giving a yellow light and a lasting afterglow. Ger. patent 748 627, Nov 7, 1944. Application R 107 950 IVb/22f dated Jul 17, 1940. In German. 1.50

1055-1056 PB L 70145 — ZIMMER, GERHARD (Inventor). Preparation of zinc silicate phosphors giving a blue shine. Ger. patent 748 628, Nov 7, 1944. Application dated Feb 11, 1939. In German. 1.50

1057-1058 PB L 70145 — (Source missing). Process for preparing a rust preventing paint. Ger. patent 748 629, Nov 7, 1944. Application H 159 875 IVc/22g dated Jun 17, 1939. In German. 1.50

1059-1061 PB L 70145 — (Source missing). Process for preparing pigmented material derived from cellulose. Ger. patent 748 630, Nov 17, 1944. Application P 72 744 IVc/22h dated Feb 22, 1936. In German. 1.50

1062-1063 PB L 70145 — (Source missing). Lubricants. Ger. patent 748 631, Nov 7, 1944. Application S 139 510 IVd/23c dated Dec 10, 1939. In German. 1.50

1064-1065 PB L 70145 — A. TH. BÖHME CHEMISCHE FABRIK, DRESDEN. Process for oiling fibrous materials. Ger. patent 748 632, Nov 7, 1944. Application B 194 276 IVc/29b dated May 11, 1941. Inventor: Schrodt. In German. 1.50

1066-1068 PB L 70145 — (Source missing). Process for preparing hard alloys containing diamonds. Ger. patent 748 633, Nov 6, 1944. Application W 97 334 VIa/40b dated Oct 15, 1935. In German. 1.50

PB L 73596. KRUPP, FRIEDRICH, WERKE, ESSEN, GERMANY. Patent applications in various fields. (FIAT Microfilm Reel T 3, Frames 2142-3184). 1942-1945. 942 f. Price: Microfilm-$1.00 - Enlargement print-$94.50

This reel was prepared by FIAT investigators in Germany. Individual items are listed below and will be available as enlargement prints. Please include PB and frame numbers when ordering individual items. In German.

Frames	Title	Price
2142-2145 PB L 73596	Side sealing for a double-lift sluice (3 illustrations). Ger. patent application K 144 V/84a, dated Jun 6, 1944. In German.	$1.50
2146-2149 PB L 73596	Method for producing hard, wear-resistant commodities from boron carbide. Ger. patent application number missing, n. d. In German.	1.50
2150-2153 PB L 73596	Method for increasing the plasticity of substances, consisting of hydrocarbon mixtures with high contents of paraffins, ceresine, or wax. Ger. patent application missing. Dec 13, 1943. In German.	1.50
2154-2161 PB L 73596	Dump car with swinging side openings. (6 illustrations). Ger. patent application K 164487 II/20 c, dated Nov 9, 1943. In German.	1.50
2162-2165 PB L 73596	Limit switch for Leonard motors. (5 illustrations). Ger. patent application number missing, n. d. In German.	1.50
2166-2172 PB L 73596	Method and device for producing coatings by diffusion on metal objects, especially on objects made of iron or steel. Ger. patent application K 164 488 VI/48 b, dated Mar 20, 1943. In German.	1.50
2173-2175 PB L 73596	Method for producing steels in coreless induction furnaces. Ger. patent application K 164 528 VI/31 a, dated Dec 22, 1943. In German.	1.50
2176-2178 PB L 73596	Homogeneous detonation of the propellant charge of winged aerial mines. (2 illustrations). Ger. patent application number missing. n. d. In German.	1.50
2179-2183 PB L 73596	Split-trail gun carriage which has a suspension that is automatically removed when the gun mount outriggers are spread. (3 illustrations). Ger. patent application number missing, n. d. In German.	1.50
2184-2185 PB L 73596	Aluminum coated nitrating vessel made of heat-resistant steel. Ger. patent application Supplementary to K 157 079 VI/18 c. n. d. In German.	1.50
2186-2187 PB L 73596	Magnetic Fe-Si alloys for cable sheaths. Ger. supplementary patent application K 164594 VIa/18c to K 161 750 VI/18 c, dated Jun 30, 1943. In German.	1.50
2188-2193 PB L 73596	Centrifugal force lubrication circulation with auxiliary lubricating device. (3 illustrations). Ger. supplementary patent application to application K 149 621 XII/ 47 c. n. d. In German.	1.50
2194-2196 PB L 73596	Method for rolling T-, angular-shaped and similar profiles. Ger. patent application number missing. n. d. In German.	1.50

2197-2204 PB L 73596 — Vehicle for rails, especially a turbine-driven locomotive, having a drive of at least two axles driven by a common driving turbine by means of a longitudinal shaft, arranged outside of the vehicle frame. (3 illustrations) Ger. patent application K 164667 II/20 b, dated May 11, 1942. In German. 1.50

2205-2210 PB L 73596 — Slotted terminal for connecting electric wires. Ger. patent application K 164 713 VIII b/21 c, dated May 14, 1942. In German. 1.50

2211-2214 PB L 73596 — Reamer with inserted cutting edges. Ger. patent application K 164 712 I b/49 c, dated Mar 5, 1943. In German. 1.50

2215-2218 PB L 73596 — Fixing of blades on turbines, especially hydraulic drives. Ger. patent application K 164 832 XII/47 h, dated July 6, 1943. In German. 1.50

2219-2226 PB L 73596 — Method for producing pure vitrite. Ger. patent application K 164 756 VI b/ 1 c, dated Oct 15, 1943. In German. 1.50

2227-2232 PB L 73596 — Core drill with a number of differently designed cutters, having the same cutting pressure. (9 illustrations). Ger. patent application number missing. n. d. In German. 1.50

2233-2238 PB L 73596 — Device for determining the range correction of indirectly pointed guns. (3 illustrations). Ger. patent application K 164 849 XI/72 f, dated Aug 20, 1943. In German. 1.50

2239-2241 PB L 73596 — Method for treating cast iron having an austenitic phase. Ger. patent application number missing. n. d. In German. 1.50

2242-2247 PB L 73596 — Safety device for conveyor belt drives. (2 illustrations). Ger. patent application number missing, dated Oct 6, 1942. In German. 1.50

2248-2251 PB L 73596 — Reducing valve for the last stage of compression in internal combustion engines. Ger. patent application number missing, n. d. In German. 1.50

2252-2254 PB L 73596 — Method for producing rolled cladding layers on items made of iron or steel. Ger. patent application K 164 957 I b/49 b, dated Dec 28, 1943. In German. 1.50

2255-2258 PB L 73596 — Hydraulic control, especially for valves of internal combustion engines. (1 illustration). Ger. patent application number missing, n. d. In German. 1.50

2259-2261 PB L 73596 — Turbine rotor and covering discs for turbines, e. g. steam or gas turbines, pumps, etc. Ger. patent application number missing, n. d. In German. 1.50

2262-2267 PB L 73596 — Hydraulic drive having permeable gaskets and a pump, which keeps the drive filled during operation. (1 illustration). Ger. patent application K 165 023 XII/47 h, dated May 22, 1943. In German. 1.50

2268-2269 PB L 73596 — Method for producing scale-resisting iron or steel plates, especially soft steel plates. Ger. patent application K 165 042 I b/ 7a, dated Nov. 17, 1943. In German. 1.50

2270-2271 PB L 73596 — Method for producing aluminum coatings on iron or steel objects. Ger. patent application K 165 099 VI a/ 48 b, dated Apr 6, 1944. In German. 1.50

2272-2274 PB L 73596 — Air-cooled internal combustion engine for vehicles. (1 illustration). Ger. patent application K 165 111 Ia/46 e², dated Jun 24, 1942. In German. 1.50

2275-2279 PB L 73596 — Method for operating internal combustion engines with storage gas. (1 illustration). Ger. patent application number missing, dated Jun 23, 1942. In German. 1.50

2280 PB L 73596 — Polishing of hard metal drawing tools with very fine boron carbide powder. Ger. patent application K 166 112 XII/ 67a, dated Sep 18, 1943. In German. 1.50

2281-2282 PB L 73596 — Grey cast iron as material for torch tips of cutting torches. Ger. patent application K 165 147 VI b/4 g, dated Jan 4, 1944. In German. 1.50

2283-2294 PB L 73596 — Mechanism for removing cartridge cases ejected from a gun barrel. (4 illustrations). Ger. patent application number missing. n. d. In German. 1.50

2295-2301 PB L 73596 — Seal for longitudinally divided inner axle-sliding bearings of railway cars. (3 illustrations). Ger. patent application K 165 257 II/20 d, dated Jul 10, 1942. In German. 1.50

2302-2303 PB L 73596 — Highly wear resistant nozzles for oil and coal dust furnaces, sand blast nozzles, drawing nozzles, etc. Ger. addition to patent application K 162 426 VI/40 b, n. d. In German. 1.50

2304-2307 PB L 73596 — Machine parts to be used for high temperatures, especially valve parts for internal combustion engines. Ger. patent application K 169 321 VI a/18 d, dated Aug 13, 1942. In German. 1.50

2308-2311 PB L 73596 — Tank, self-propelled gun carriage etc., with locking mechanism for the gun barrel. (2 illustrations). Ger. patent application K 168 322 XI/72 g, dated Mar 3, 1944. In German. 1.50

2312-2315 PB L 73596 — Gun locking mechanism for tanks. (4 illustrations). Ger. patent

application number missing, dated Apr 19, 1943. In German. 1.50

2316-2317 PB L 73596 — Welded construction parts, especially girders for steel and bridge construction. Ger. patent application additional K 165 389 V/37 b to application K 157 145 V/ 37 b, dated July 22, 1942. In German. 1.50

2318-2326 PB L 73596 — Vehicle for rails, especially turbine-driven locomotive with single-axle drive. (5 illustrations). Ger. patent application number missing, dated Sep 30, 1942. In German. 1.50

2327-2328 PB L 73596 — Production of items, which must show a high degree of thermal expansion, made of alloys with 2-30% zinc, 3-40% copper and the rest manganese. Ger. patent application K 165 396 VI a/40 b, dated Apr 28, 1944. In German. 1.50

2329-2332 PB L 73596 — Heating chambers for low temperature carbonization equipment working according to the process of heating surface carbonization. Ger. patent application K 165 417 VI b/10 a, dated Apr 1, 1943. In German. 1.50

2333-2336A PB L 73596 — Single axle chassis for truck-trailers. (5 illustrations). Ger. patent application K 165 433 II/63 e, dated Jun 8, 1944. In German. 1.50

2337-2340 PB L 73596 — Drop-forged connecting or side rod, especially for the driving mechanism of locomotives. (4 illustrations). Ger. patent application number missing, dated Dec 15, 1942. In German. 1.50

2341-2343 PB L 73596 — Use of iron aluminum alloys as material for items, exposed to magnetic forces. Ger. additional patent application K 165 472 VI/18 e to application K 161764 VI/18e, dated Aug 1, 1942. In German. 1.50

2344-2347 PB L 73596 — Method for producing a welding seam on the butt ends of sheets clad with corrosion-resisting material. Ger. addition to patent application K 165 043 Ib/49 h, dated Dec 15, 1942. In German. 1.50

2348-2350 PB L 73596 — Boron carbide production. Ger. patent application K 165 501 VI b/12 i, dated Jan 8, 1943. In German. 1.50

2351-2363 PB L 73596 — Gun carriage, which can be converted from a wheeled gun carriage into a revolvable one and vice versa. (10 illustrations). Ger. patent application K 165 588 II / 72 c, dated August 11, 1942. In German. 1.50

2364-2367 PB L 73596 — Device for magnetizing and measuring the magnetic flux of permanent magnets. (1 illustration). Ger. patent application number missing, n. d. In German. 1.50

2368-2378 PB L 73596 — Machine for hot pressing nuts with fixed die and with twin tool slides arranged on both sides of the die. (3 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2379-2382 PB L 73596 — Detachable shoulder ring, fitted into a groove of the supporting machine part. (4 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2383-2385 PB L 73596 — High pressure valve with a valve cone, containing a ring made of elastic material. (1 illustration). Ger. registered patent design application K 55529 Gm 47 g, dated Aug 17, 1942. In German. 1.50

2386-2388 PB L 73596 — Valve body consisting of a longitudinal tube with welded-on socket and with a welded-in intermediate bottom as valve seat. (1 illustration). Ger. patent application K 165 672 XII/ 47 g, dated Aug 21, 1942. In German. 1.50

2389-2393 PB L 73596 — Turbo-engine and machine. (2 illustrations). Ger. supplementary patent application R II 3806 Ia/14 c, dated Jun 1943. In German. 1.50

2394-2399 PB L 73596 — Internal combustion engine with combustion chamber arranged in the piston and with fuel injection nozzle, fixed to the side of the cylinder. (1 illustration). Ger. patent application K 165 718 1a/46a, dated Feb 15, 1944. In German. 1.50

2400-2401 PB L 73596 — Steam engine-driven vehicle, the boiler of which is heated by the gas from a gas producer using solid fuels. Ger. patent application K I 71895 II/ 63 c, dated Jan 5, 1944. In German. 1.50

2402-2406 PB L 73596 — Winnowing device for grain, seeds, etc., on threshers, harvesters, and seed grain cleansing apparatus. (3 illustrations). Ger. patent application K 165 728 II/ 45 c, dated Dec 24, 1943. In German. 1.50

2407-2409 PB L 73596 — Production of silica bricks by adding ground ferro-silicon to the raw material. German patent application K 165 738 VI b/80 b, dated Jan 16, 1943. In German. 1.50

2410-2412 PB L 73596 — Production of chromium-alloyed steels in the basic open hearth furnace. Ger. patent application number missing, n. d. In German. 1.50

2413-2421 PB L 73596 — Supporting case for firing and penetration test plates. (6 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2422-2424 PB L 73596 — Base plate for supporting the driving gears of air-cooled internal combustion engines.

(1 illustration). Ger. patent application K 165 808 Ia/ 46 c, dated Mar 30, 1943. In German. 1.50

2425-2430 PB L 73596 — Device for guiding goods off a roller conveyor. (3 illustrations). Ger. patent application K 165888 XI/61 e, dated Jan 12, 1943. In German. 1.50

2431-2440 PB L 73596 — Rear end of carriage, serving as support of plates for firing and penetration tests. (9 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2441-2444 PB L 73596 — Permanent magnet, composed of wires. (5 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2445-2451 PB L 73596 — Air-cooled internal combustion engine with cylinders, arranged in one line. (2 illustrations). Ger. patent application K 165 862 Ia/ 46 c, dated Sep 12, 1942. In German. 1.50

2452-2456 PB L 73596 — Permanent magnetic separator (magnetic filter) with wire- or stud shaped bodies for attracting the material. (4 illustrations). Ger. patent application K 165 906 VI b/ 1 b, dated Nov 12, 1943. In German. 1.50

2457-2460 PB L 73596 — Method for warming up air-cooled internal combustion engines, especially for vehicles. (2 illustrations). Ger. patent application number missing, dated Nov 26, 1942. In German. 1.50

2461-2465 PB L 73596 — Fuse setting device with special gripping appliances. (2 illustrations). Ger. patent application K 169 217 XI/72 i, dated Dec 23, 1943. In German. 1.50

2466-2468 PB L 73596 — Internal combustion engine with combustion chamber arranged in the piston and with fuel injection nozzle fitted on the inside of the cylinder wall. (1 illustration). Ger. patent supplementary application to K 162 288 Ia/46 a^2, n. d. In German. 1.50

2469-2471 PB L 73596 — Internal combustion engine with combustion chamber arranged in the piston and with fuel injection nozzle fitted on the inside of the cylinder wall. (1 illustration). Ger. supplementary patent application to K 162 288 Ia/46 a^2, n. d. In German. 1.50

2472-2474 PB L 73596 — Internal combustion engine with combustion chamber arranged in the piston and with fuel injection nozzle fitted on the inside of the cylinder wall. (2 illustrations). Ger. supplementary patent application K 165 991 Ia/ 46 a^2 to K 162 288 Ia/ 46 a^2, dated Jan 14, 1943. In German. 1.50

2475-2477 PB L 73596 — Internal combustion engine with combustion chamber arranged in the piston and with fuel injection nozzle fitted on the inside of the cylinder wall. (1 illustration). Ger. supplementary patent application to K 162 288 Ia/46 a^2, n. d. In German. 1.50

2478-2491 PB L 73596 — Electric firing mechanism. (12 illustrations). Ger. patent application K 165 964 XI/ 72 d, n. d. In German. 1.50

2492-2494 PB L 73596 — Air-cooled internal combustion engine. Ger. supplementary patent application K 166 034 Ia/ 46 c, to K 165 862 Ia/ 46 c^4, dated Sep 30, 1942. In German. 1.50

2495-2498 PB L 73596 — Device for magnetising and measuring the magnetic flux of permanent magnets. (1 illustration). Ger. supplementary patent application to K 165 626 VIII 21/ g, dated Feb 12, 1943. In German. 1.50

2499-2508 PB L 73596 — Hydrostatic dam. (8 illustrations). Ger. patent application S 69492 V/84 a, dated Oct 5, 1942. In German. 1.50

2509-2512 PB L 73596 — Hydrostatic dam. (2 illustrations). Ger. patent supplementary application S 70711 V/84 a, to S 69492 V/84/a, dated Oct. 5, 1942. In German. 1.50

2513-2516 PB L 73596 — Hydrostatic dam (2 illustrations). Ger. patent application J 71971 V/ 84 a, dated Oct 5, 1942. In German. 1.50

2517-2520 PB L 73596 — Hydrostatic dam. (2 illustrations). Ger. supplementary patent application J 72212 V/ 84a, to J 71971 V/ 84 a, dated Oct 5, 1942. In German. 1.50

2521-2522 PB L 73596 — Using iron alloys with silicon and manganese as material having constant permeability in small magnetic fields. Ger. patent application K 166 107 VIa/ 18 d, dated Feb 9, 1943. In German. 1.50

2523-2533 PB L 73596 — Centrifugal lubrication for rod bearings, especially of locomotives. (8 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2534-2540 PB L 73596 — Gate dam with support that can be lifted and lowered. Ger. patent application J67107 V/84 a, dated Sept 24, 1941. In German. 1.50

2541-2550 PB L 73596 — Movable dam(gate dam). Ger. supplementary patent application to J 67107 V/84a, dated Jan 28, 1941. In German. 1.50

2551-2554 PB L 73596 — Hydrostatic dam. (1 illustration). Ger. second supplementary patent application to J 67107 V/84a, n. d. In German 1.50

2555-2560 PB L 73596 — Motor driven sweeper. (2 illustrations). Ger. patent application H 162 395 V/19b, dated Jan 21, 1943. In German. 1.50

2560A-2562 PB L 73596 — Molding material for producing molds used in casting of high

temperature melting metals. Ger. patent application number missing, n. d. In German. 1.50

2563-2566 PB L 73596 — Flushing attachment for vehicles. Ger. patent application K 166 346 VIb/5 b, dated Jun 12, 1943. In German. 1.50

2567-2570 PB L 73596 — Facilitating the starting of air-cooled internal combustion engines by first warming up the cylinders by an external heat source. (2 illustrations). Ger. patent application K 166 345 Ia/46a, dated Jul 21, 1943. In German. 1.50

2571-2581 PB L 73596 — Centrifugal lubrication for rod bearings, especially for locomotives. (3 illustrations). Ger. patent application number missing. n. d. In German. 1.50

2582-2591 PB L 73596 — Limbering device provided with an accumulator. (9 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2592-2593 PB L 73596 — Acid lining for electric furnaces. Ger. patent application number missing, dated Mar 18, 1943. In German. 1.50

2594-2596 PB L 73596 — Appliance for enlarging the span of dismantable bridges. (3 illustrations). Ger. patent application K 166 390 V/19 d, dated Jun 24, 1943. In German. 1.50

2597-2598 PB L 73596 — Basic lining for coreless induction furnaces. Ger. patent application K 166 439 VI/ 80 b, dated Jul 30, 1943. In German. 1.50

2599-2602 PB L 73596 — Side sealing for double-lift sluice. (2 illustrations). Ger. additional patent application number missing, dated Mar 18, 1943. In German. 1.50

2603-2606 PB L 73596 — Seal for lifting sluice. (1 illustration). Ger. patent application number missing, n. d. In German. 1.50

2607-2609 PB L 73596 — Manufacture of chemical products, containing silicic acid by using the amorphous silicic acid, obtained from the waste gas of the electric production of silicon alloys. Ger. patent application number missing, dated Feb 5, 1943. In German. 1.50

2610-2709 PB L 73596 — Frame numbers 2610-2709 are missing due to erroneous numbering.

2710-2712 PB L 73596 — Use of steels having sulfur content of 0,08 to 1% as material for items which are under stress at low temperatures. Ger. patent application K 166 481 VI a/ 18 d, dated Nov 26, 1943. In German. 1.50

2713-2723 PB L 73596 — Centrifugal lubrication for rod bearings, especially those of locomotives. (3 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2724-2727 PB L 73596 — Desulfurizing and prerefining of pig iron by treatment with a calcium ferrite slag. Ger. patent application K 166433 VIa/ 18 b, dated Feb 8, 1943. In German. 1.50

2728-2732 PB L 73596 — Device for mining and hauling coal and similar minerals. (4 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2733-2736 PB L 73596 — Springy pull and push device with double-disc buffer for vehicles. (3 illustrations). Ger. patent application K 166594 II/20e23, dated Oct 21, 1942. In German. 1.50

2737-2740 PB L 73596 — Device for heating the sealed parts of movable weirs. (1 illustration). Ger. patent application number missing, n. d. In German. 1.50

2741-2743 PB L 73596 — Gas-fired furnace for the heating and drying of rooms. (1 illustration). Ger. patent application number missing, dated Sep 21, 1942. In German. 1.50

2744-2747 PB L 73596 — Device for introducing fuels into converters. (1 illustration). Ger. patent application K 166628 VIa/ 18 b, dated Oct 29, 1943. In German. 1.50

2748-2756 PB L 73596 — Loading device for tanks. (3 illustrations). Ger. patent application number missing, dated 1942. In German. 1.50

2757-2761 PB L 73596 — Jacket-heated flange piping for high-boiling, viscous materials. (2 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2762-2778 PB L 73596 — Helical spring, with a torsional moment applied around the longitudinal axis of the spring. (11 illustrations). Ger. patent application K 166668 XII/47a, dated Jan 12, 1945. In German. 2.00

2779-2781 PB L 73596 — Method for producing pig iron, low in sulfur. Ger. patent application number missing, n. d. In German. 1.50

2782-2787 PB L 73596 — Bottom seal for submersible weirs. Ger. patent application number missing, n. d. In German. 1.50

2788-2791 PB L 73596 — Mechanism for recording the difference in the motion of two moving points of a machine part. (2 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2792-2799 PB L 73596 — Underground chain scraper conveyor for a production appliance with work picks, moving back and forth on the working face. (6 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2800-2805 PB L 73596 — Railroad installation with 2-way, wide gage tracks and corresponding vehicles for traffic over a large area. (2 illustrations). Ger. patent application K 166870 112od, dated Jan 8, 1944. In German. 1.50

2806-2808 PB L 73596 — Oil gage with an oil-level indicating glass connected with the oil container.

(1 illustration). Ger. patent application number missing, n. d. In German. 1.50

2809-2811 PB L 73596 — Steel alloys as material for items which are stressed by long lasting static elastic tensions e. g. pre-stressed concrete reinforcements and shrinkage-fitted parts. Ger. patent application K 166961 VIa/ 18 d, dated Jan 18, 1945. In German. 1.50

2812-2815 PB L 73596 — Locking mechanism for pressure vessels, especially for vessels having a large diameter. (6 illustrations). Ger. patent application K 167o18/47f 21, dated Jan 12, 1944. In German. 1.50

2816-2822 PB L 73596 — Loading device for reeled bundles, especially wire bundles. (3 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2823-2827 PB L 73596 — Hydraulic governor for driving engines with variable number of revolutions, especially rolling mill steam engines. Ger. patent application number missing, n. d. In German. 1.50

2828-2834A PB L 73596 — Sprocket chain, coupled to a link pin with each two of its side plates. (9 illustrations). German patent application K 167o89 XII/47, dated 1943. In German. 1.50

2835-2838 PB L 73596 — Inclination indicator for a moved part of a lifting mechanism. (1 illustration). Ger. patent application number missing, dated Mar 18, 1943. In German. 1.50

2839-2840 PB L 73596 — Method for attaining a high initial permeability and a small permeability increase in iron-silicon and iron-aluminum alloys. Ger. patent application number missing, dated Apr 7, 1943. In German. 1.50

2841-2843 PB L 73596 — Method and device for granulating slags and similar products and their use. Ger. patent application K 167158 VIb/80b, dated Jan 17, 1944. In German. 1.50

2844-2847 PB L 73596 — Shaft bearing for turbines, through which flows a hot working medium. (2 illustrations). Ger. patent application R II4663 Ia 14 c, dated Nov 19, 1942. In German. 1.50

2848-2852 PB L 73596 — Steam or gas turbine stage, especially the regulation stage with speed gradation, provided with a switch- on and switch- off mechanism for the nozzles. (2 illustrations). Ger. patent application RI 14874 IA/14c, dated Sep 14, 1944. In German. 1.50

2853-2858 PB L 73596 — Fastening blades in grooves of steam- and gas-turbines working at high temperatures. (3 illustrations). Ger. patent application R II 4981 Ia/14c, dated Apr 30, 1943. In German. 1.50

2859-2866 PB L 73596 — Heat circulation for steam turbine sets with preliminary heating of the feed water in the exchange process. (1 illustration). Ger. patent application K II4309 IA/14 c, dated Jan 14, 1943. In German. 1.50

2867-2874 PB L 73596 — Safety-device on dump buckets of mining cars to prevent unintended tipping. (2 illustrations). Ger. patent application number missing, dated 1943. In German. 1.50

2875-2883 PB L 73596 — Multiple-purpose measuring device, especially for measuring conical and cylindrically bored holes, internal threads and internally situated grooves. (9 illustrations). Ger. patent application K 167175 IXb/42b, dated Jan 18, 1943. In German. 1.50

2884-2886 PB L 73596 — Cooling air supply for the engine located in the front part of the motor vehicle. (3 illustrations). Ger. patent application K 1672o2 II/63c, dated Nov 6, 1942. In German. 1.50

2887-2889 PB L 73596 — Motor vehicle with air-cooled engine and hood openings for exit of air. (2 illustrations). Ger. patent application K 17oo51 II/63 II, dated Nov 1943. In German. 1.50

2890-2894 PB L 73596 — Method for improving the nitrating property of non-corrosion-resistant iron and steel alloys. (2 graphs). Ger. patent application number missing, n. d. In German. 1.50

2895-2899 PB L 73596 — Method for producing hollow bodies by pressing a press ram into a work piece located in a die. (4 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2900-2903 PB L 73596 — Method and device for testing drawn parts, e.g. cartridge cases, as to material defects. (2 illustrations). Ger. patent application number missing, dated 1944. In German. 1.50

2904-2907 PB L 73596 — Appliance for separately sucking the external and internal gases out of horizontal coke furnaces. (2 illustrations). Ger. patent application number missing, dated May 11, 1944. In German. 1.50

2908-2912 PB L 73596 — Method for separating coal dust in salt solutions as heavy liquids. Ger. patent application number missing, dated Aug 18, 1943. In German. 1.50

2913-2916 PB L 73596 — Device for heating the sealed parts of movable sluices. (2 illustrations). Ger. patent application number missing, dated May 31, 1943. In German. 1.50

2917-2920 PB L 73596 — Sprocket chain coupled to a link pin of invariable thickness with each two of its side plates. (3 illus-

trations). Ger. patent application number missing, n. d. In German. 1.50

2921-2923 PB L 73596 — Roller table for the feeding and easy handling of long work pieces on machines. (1 illustration). Ger. patent application K 56774 XII/ 47, dated Apr 19, 1943. In German. 1.50

2924-2928 PB L 73596 — Vehicle for transporting heavy loads on roads and cross-country. (3 illustrations). Ger. patent application K 167325 II/63c, dated Jun 3, 1943. In German. 1.50

2929-2931 PB L 73596 — Method and device for producing monoalkylated aromatic hydrocarbons by the liquid cycle condensation of aromatic substances with monohalogenated hydrocarbons in the presence of metallic aluminum. Ger. patent application number missing, dated May 31, 1943. In German. 1.50

2932-2936 PB L 73596 — Fastening the cap of the projectile on the ogive of the projectile. (2 illustrations). Ger. patent application K 167368 XI/721, dated Feb 8, 1943. In German. 1.50

2937-2940 PB L 73596 — New type sector weir. (2 illustrations). Ger. patent application number missing, dated Apr 22, 1943. In German. 1.50

2941-2950 PB L 73596 — Breech block of gun barrel with operating spring. (9 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2951-2956 PB L 73596 — Cyanogen-treated cutting tools made of high speed tool steels. Ger. patent application K 167468 VIa/18d, dated Mar 13, 1944. In German. 1.50

2957-2960 PB L 73596 — Welded bar frame for locomotives. (5 illustrations). Ger. patent application K 167489 II/20d, dated Dec 17, 1943. In German. 1.50

2961-2965 PB L 73596 — Bearing bushing made of sintered material and method for its production. (2 illustrations). Ger. patent application number missing, n. d. In German. 1.50

2966-2969 PB L 73596 — Material for bearing bushings and a method for its production. Ger. patent application number missing, dated Apr 7, 1943. In German. 1.50

2970-2972 PB L 73596 — Production of blades for turbo engines. (1 illustration). Ger. patent application R II5320 Ib/49l, dated Jun 16, 1943. In German. 1.50

2973-2980 PB L 73596 — Cooling water installation for motor vehicles. (1 illustration). Ger. patent application K 167514 II/20b, dated Jan 14, 1944. In German. 1.50

2981-2991 PB L 73596 — Tipping valve for mass- and individual tipping of dump buckets of mining cars. (4 illustrations). Ger. patent application K 167586 II/20c, dated Feb 20, 1943. In German. 1.50

2992-3000 PB L 73596 — Ammunition dump with several depressions arranged one above the other, for receiving the ammunition. (6 illustrations). Ger. additional patent application 731066, n. d. 1943. In German. 1.50

3001-3003 PB L 73596 — Elastic wheel with springs for absorbing wheel shocks, and wheel pressure. Ger. patent application K 167652 II/63c, dated Dec 8, 1943. In German. 1.50

3004-3006 PB L 73596 — Device for mining and hauling coal and similar minerals. Ger. patent application number missing, n. d. In German. 1.50

3007-3011 PB L 73596 — Appliance for mining and hauling coal and similar minerals. (3 illustrations). German patent application K 167653 VIb/5b, dated Sep 7, 1944. In German. 1.50

3012-3014 PB L 73596 — Grinding wheels for processing materials of all kind and a method for their production. German patent application number missing, n. d. In German. 1.50

3015-3017 PB L 73596 — Appliance for enlarging the span of dismantable bridges. (2 illustrations). German supplementary patent application to K 166390 V/19d, n. d. In German. 1.50

3018-3022 PB L 73596 — High powered vehicle for rails, especially turbine-driven locomotive, with at least two mechanically driven axles. (2 illustrations). German patent application K 167692 II/20b, dated Nov 20, 1943. In German. 1.50

3023-3029 PB L 73596 — Large turbine-driven locomotive with mechanical power transmission. (3 illustrations). Ger. patent application K 167691 II/20b, dated Jan 20, 1944. In German. 1.50

3030-3035 PB L 73596 — Method for producing molded pieces of coal. Ger. patent application K 156703/ 10, dated May 31, 1943. In German. 1.50

3036-3040 PB L 73596 — Bottom seal for submergible weirs. (3 illustrations). Ger. supplementary patent application to K 166 781 V/84a, dated Jul 2, 1943. In German. 1.50

3041-3049 PB L 73596 — Haulage- and coal-mining machine, especially for mining brown coal underground. (5 illustrations). Ger. patent application K 167 732 VIb/5b, dated Jul 5, 1943. In German. 1.50

3050-3053 PB L 73596 — Nozzle lubricator with adjustable nozzle pin. (1 illustration). Patent application number missing, dated Jul 7, 1943. In German. 1.50

3054-3055 PB L 73596 — Method for increasing the permeability constancy of magnetically

soft materials. Ger. patent application number missing, n. d. In German. 1.50

3056-3057 PB L 73596 — Machine tool, especially milling cutter which blades consist of material other than that of the tool body. (2 illustrations). Ger. patent application number missing, n. d. In German. 1.50

3058-3059 PB L 73596 — Production of pig iron with a low percentage of sulfur. (2 diagrams). Ger. supplementary patent application to K 166 744 VIa/18a, n. d. In German. 1.50

3060 PB L 73596 — Method for increasing the permeability of magnetically soft materials. Ger. patent application number missing, n. d. In German. 1.50

3061-3064 PB L 73596 — Cradle, which barrel recoil brake cylinder or counter recoil cylinder serves as prime longitudinal outrigger. (3 illustrations - 2 illustrations missing). Ger. patent application number missing, n. d. In German. 1.50

3065-3068 PB L 73596 — Barrel recoil gun. (6 illustrations). Ger. patent application number missing. n. d. In German. 1.50

3069-3071 PB L 73596 — Barrel recoil gun with level cradle guide rails. (2 illustrations). Ger. patent application number missing. n. d. In German. 1.50

3072-3075A PB L 73596 — Switch tongue, especially spring tongue, made of normal rails. (5 illustrations). Ger. patent application K 167 878 V/19, dated Oct 28, 1943. In German. 1.50

3076-3079 PB L 73596 — Device for smoothing gear flanks, especially marine engine drive gears. (3 illustrations). Ger. patent additional application to K 151 609 Ib/49d, dated May 3, 1944. In German. 1.50

3080-3086 PB L 73596 — Method and device for performing condensations with aluminum chloride. Ger. patent application K 167 935 IVc/12e, dated Aug 10, 1943. In German. 1.50

3087-3088 PB L 73596 — Method for sintering metal chips. Ger. patent application number missing. n. d. In German. 1.50

3089-3093 PB L 73596 — Fine boring device for vertical drilling machines. (2 illustrations). Ger. patent application number missing, dated Sep 2, 1943. In German. 1.50

3094-3119 PB L 73596 — Device for handling pressure gages, which are used for measuring the gas pressure occurring especially during the firing of guns. (21 illustrations). Ger. patent application number missing, n. d. In German. 3.50

3120-3127 PB L 73596 — Tandem steam or gas-turbine of the drum type. (3 illustrations). Ger. patent application R 113 228 Ia/14c, dated May 10, 1943. In German. 1.50

3128-3129 PB L 73596 — Method for producing fireproof stones, which contain quartz and alumina as essential components. Ger. patent application number missing, dated Dec 20, 1943. In German. 1.50

3130-3135 PB L 73596 — Single drive separator with drive shaft parallel to the shaft of the separator drum. (4 illustrations). Ger. patent application number missing, dated Aug 21, 1943. In German. 1.50

3136-3139 PB L 73596 — Separator for purifying and degassing liquids. (1 illustration). Ger. patent application number missing, dated Jul 17, 1943. In German. 1.50

3140-3145 PB L 73596 — Method and device for decarbonizing iron and iron alloys. (1 illustration). Ger. patent application K 168 178 VIa/18c, dated Aug 22, 1944. In German. 1.50

3146-3151 PB L 73596 — Rotating device for producing drifts and galleries underground especially for driving shafts. (4 illustrations). Ger. patent application number missing, n. d. In German. 1.50

3152-3158 PB L 73596 — Wall with welded- in bolts, which are inserted with the cylindrical ends into smooth bore holes of the wall. (3 illustrations). Ger. patent application K 168 246 X/13e, dated Jul 5, 1944. In German. 1.50

3159-3160 PB L 73596 — Method for producing basic steel of low phosphorus and nitrogen content. Ger. patent application K 169 271 VIa/18b, dated Mar 30, 1944. In German. 1.50

3161-3165 PB L 73596 — Locking lid for vessels and similar apparatus subjected to high internal pressures. (2 illustrations). Ger. patent application number illegible, dated Aug 27, 1943. In German. 1.50

3166 PB L 73596 — Production of vanadic acid. Ger. patent application K 168 346 IVb, 12i, dated Aug 27, 1943. In German. 1.50

3167-3169 PB L 73596 — Crucibles for core-less induction furnaces. Ger. additional patent application K 168 373 VIa/31a to K 164 528 VI/31a, dated Apr 24, 1944. In German. 1.50

3170-3178 PB L 73596 — Support for firing and penetration test plates. (6 illustrations). Ger. patent application number missing, n. d. In German. 1.50

3179-3184 PB L 73596 — Device for separating liquid mixtures by fractional distillation with a revolving separating column. (2 illustrations). Ger. patent application number missing, dated Sep 10, 1943. In German. 1.50

REGISTER OF PATENTS AVAILABLE FOR LICENSING OR SALE

Information on the following patents can be obtained from the U. S. Patent Office, Washington 25, D. C.

The "Groups" appearing after the patent abstracts are based on the Standard Industrial Classification Manual, Vol. I, Manufacturing Industries, Executive Office of the President, Bureau of the Budget.

Official Gazette, October 21, 1947

PAT. 2,197,694. Combined liquid applicator and kinesitherapy device. Patented Apr. 16, 1940.
A device by which one's skin may be showered, rubbed and massaged, comprises a liquid container formed by two pieces of sheet material fastened together at their edges. One sheet is relatively flexible and resilient and the other is relatively rigid and has attached to it a group of friction or suction cups. The cups have openings in communication with the interior of the fluid container. The device has hand grips at each end, one of which is attached to an inlet tube connected to a water spigot. The flow of water may be cut off and the rubbing and massaging continued with only the suction action of the friction cups. Metal, hard rubber, Bakelite, or molded plastic may be used in the construction of this invention. (Owner) Gottlieb Grossen, 1862 Ontario Place, N. W., Washington 9, D. C. Group 39-91. Reg. No. 8,343.

PAT. 1,956,572. Sanitary dining table service. Patented May 1, 1934.
A cardboard folder, with an outer cover of waterproof material, for use in public eating places as a sanitary protector for individual silverware, napkin, packet of matches, toothpicks, and other accessories. After the contents have been removed the open folder lies flat, disclosing the dinner menu and advertising of local merchants under a sheet of cellophane, and is used as a hot-dish pad when the meal is served. (Owner) Gottlieb Grossen, 1862 Ontario Place, N. W., Washington 9, D. C. Groups 26-69; 39-93. Reg. No. 8,344.

PAT. 1,864,817. Rack fixture. Patented June 28, 1932. Groups 33-59; 40. Reg. No. 8,345.

PAT. 2,348,902. Handle retaining fixture. Patented May 16, 1944. Groups 33-59; 40. Reg. No. 8,346.

These two patents relate to a sheet metal wall bracket for supporting a broom or mop. A rubber-lined clamp on a swinging member of the bracket grips a broom or mop handle. The weight of the broom or mop causes the holder to bind or grip the handle and prevents any downward slipping movement. Accommodates handles of different diameter. (Owner) Roy R. Hart, 63 South 35th St., San Jose 12, Calif.

PAT. 2,147,678. Cooling apparatus. Patented Feb. 21, 1939. Group 35-84. Reg. No. 8,347.

PAT. 2,148,412. Refrigerating apparatus. Patented Feb. 21, 1939. Group 35-84. Reg. No. 8,348.

PAT. 2,148,413. Refrigerating apparatus. Patented Feb. 21, 1939. Group 35-84. Reg. No. 8,349.

PAT. 2,148,414. Cooling apparatus. Patented Feb. 21, 1939. Group 35-84. Reg. No. 8,350.

These four patents relate to refrigerating apparatus, and particularly to mechanism which is connected to and forms a part of the refrigerant circuit and which controls the expansion of the refrigerant from the high pressure side to the evaporator and which mechanism also effects distribution of the liquid refrigerant in equal or other desired proportions among the several parallel paths of the evaporator. One feature includes orifices for effecting distribution. A further feature relates to control of the expansion in response to temperature and pressure of the vaporized refrigerant leaving the evaporator. (Owner) Westinghouse Electric Corporation. Address correspondence to Patent Department, Westinghouse Electric Corporation, East Pittsburgh, Pa.

DES. 144,079. Design for a clothespin. Patented Mar. 5, 1946. (Owner) Robert David Smith, Route 3, Box 229A, Sylacauga, Ala. Groups 25-99; 40. Reg. No. 8,351.

PAT. 2,421,275. Metallic safety bar for doors. Patented May 27, 1937.
This safety bar for doors has a tubular section, flattened at one end and fastened to the door jamb for free swinging movement. One end of a rod, telescoped within the tubular portion, engages a spring which constantly urges the rod outwardly so that its other end will engage a keeper in the door jamb. A door lock is arranged in inverted horizontal position so that its bolt will cooperate with a downwardly extending projection on the lower portion of the bar to move the bar into and out of locked position. A bracket used in combination with the bar, has a swingable portion which permits the projection to be raised or lowered and held in place. The bar spans the door, being placed in operation by a key from the outside, or by turning the knob of the lock from the inside. (Owner) Leandro Garcia Lopez, Ayestaran No. 5, Habana, Cuba. Group 33-59. Reg. No. 8,352.

PAT. 2,296,125. Automatic volume control for keyboard operated musical instrument. Patented Sept. 15, 1942.
This device is used to control the sound volume of organs and like musical instruments in accordance with the amount of pressure exerted on a manual or pedal keyboard. Broadly, the device comprises a pick-up and audio amplifier, the input of the latter operated by a variable resistor connected to the output of both. The resistor consists of a mercury-filled container having a movable tapered electrode immersed in the mercury to a depth corresponding to key pressure. A compensating means consists of a permanent magnet core-equipped coil and cooperating hollow coil which telescope to a limit also in accordance with key pressure. This compensating means is effective upon movement of the bar in either direction to impress positive or negative voltage on the suppressor grid of an amplifier electron tube. This acts to equalize the volume output during variations in capacity due to the movement of a key from or toward its maximum depressed position. (Owner) John L. Traub, Traub Company, Henning, Minn. Group 39-32. Reg. No. 8,353.

PAT. 2,419,776. Electric damper control. Patented Apr. 29, 1947.
Apparatus comprising combined electrical and mechanical means is automatically operated by pressure from the boiler to regulate this damper control. A feed worm screw for connection with the damper and operatively connected to an electric motor moves axially up and down to change the position of the damper. A circuit system is provided with reversing means for the motor. Pressure operated means, which include an oil font with float therein and a bell (telescoped on the font), cooperate with the screw and circuit system to control the reversing means causing the screw to change the position of the damper. (Owner) Henry C. Holz, 371 West 16th South St., Salt Lake City, Utah. Groups 33-64; 33-66; 36-19. Reg. No. 8,354.

PAT. 2,343,786. Fluid coupling. Patented Mar. 7, 1944.
Fluid coupling may be rapidly filled and emptied to render it operative or inoperative without the necessity of remote pumping mechanism, thereby facilitating its use in conjunction with a motor vehicle. A fluid-tight casing provided with a series of conduits encloses the impeller and turbine wheels of the coupling. An extension of the casing is provided with an external frictional braking means. A stationary reservoir is in open communication with the coupling at all times. The coupling is constructed and arranged so that, when rotation of the casing is stopped by application of the brake, the casing will function to quickly expel fluid from the coupling to render it inoperative. When the brake is released the casing will freely rotate and function to quickly fill the coupling to render it operative. (Owner) Charles L. Martin, 8915 Trefore Ave., St. Louis 21, Mo. Groups 35-66; 35-49; 38-31. Reg. No. 8,355.

PAT. 2,389,697. Sanitary detachable pocket. Patented Nov. 27, 1945.
This patent presents a detachable trousers pocket which may be discarded when necessary and easily replaced with a new pocket of the same type. The detachable pocket has a series of buttonholes which are in relative position to buttons along the inner side of the waistband and on a reinforced strip attached to the side seam of the trousers to which the pocket is to be attached by the user. (Owner) Isidor Stoeckert, 6040 Cathalpa Av., Ridgewood, L. I., N. Y. Group 23-23. Reg. No. 8,356.

PAT. 2,171448. Buckle. Patented Aug. 29, 1939.
A separable fastener or buckle, particularly useful for overshoes or the like, cannot become accidentally unlocked. The fastener consists of a curved metal strap provided with spaced catches in the form of teeth and a sleeve adapted to receive the strap. The top of the sleeve is provided with a slot and a pivoted lever. The lever has a right-angular finger on its pivoted end for engaging and disengaging the teeth when the lever is raised and lowered. When the lever is in flat lowered position the flat pivot pins are held between pairs of opposed flat springs to maintain the lever in locked position. The springs also hold the lever in its extreme raised position. (Owner) I. Basil Holtz, P. O. Box 625, Weirton, W. Va. Group 39-99. Reg. No. 8,357.

PAT. 2,356,848. Buckle. Patented Aug. 29, 1944.
A two-part buckle for use on overshoes. One of the parts is in the form of a clasp which is adapted to be inserted through any one of a series of transverse spaced slots in a tongue forming the other part of the buckle. The side edges of the tongue are rolled inwardly to form spring catches. A pair of lugs on the clasp are adapted to be snapped below the rolled side edges of the tongue to prevent accidental release of the clasp from the tongue. A series of notches in the rolled edges facilitate the snapping of the lugs into place. A modification is shown. (Owner) I. Basil Holtz, P. O. Box 625, Weirton, W. Va. Group 39-99, Reg. No. 8,358.

PAT. 2,411,750. Follow-up control system. Patented Nov. 26, 1946.
Movement of an indicator and a following unit are so synchronized that displacement of the indicator from a neutral position brings about proportional displacement of the following unit. The indicator may comprise a galvanometer, a compass, a gun sight, etc. which is moved under very little power, and a servo arrangement to effect the high power driving of a following unit in response to indicator displacement. The following unit may comprise a gun mount, cutting tool of a lathe, director, or recorder, etc. The servo arrangement usually comprises a powerful motor for driving the following unit, and a control, usually an amplifier, to run the motor a proper amount and in the proper direction, to reduce to zero any deviation of the following unit from the indicating element. The system may be used for controlling such conditions as salinity, pressure, humidity, voltage, etc. (Owner) Hyman Olken, 1404 Tuckerman St., N. W., Washington, D. C. Group 36-92. Reg. No. 8,359.

PAT. 2,376,882. Space discharge device. Patented May 29, 1945. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.) Group 36-92. Reg. No. 8,360.

PAT. 2,402,664. Space discharge device. Patented June 25, 1946. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.) Group 36-92. Reg. No. 8,361.

These two electron discharge devices have various applications, being used to change current in response to variation in condition. The structural arrangement includes a divided anode component in which electron flow from a cathode to each of a pair of anodes is varied simultaneously by a charged movable plate or other arrangement positioned outside an enclosing shield. The plate controls the device so that electron flow in one of the anode-cathode circuits is increased as the electron flow in the other circuit is decreased. (Owner) Hyman Olken, 1404 Tuckerman St., N. W., Washington, D. C.

PAT. 2,339,289. Recorder. Patented Jan. 18, 1944. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.)
Electromagnetic apparatus for measuring and recording variable conditions or quantities such as temperature, specific gravity, velocity of flow, etc. It consists of the electromagnetic means, and a pen arm which cooperates with a motor-driven chart so that permanent and visible records are obtained. The magnitude of mechanical displacement is governed by the magnitude of the condition or quantity which is to be measured or recorded. (Owner) Hyman Olken, 1404 Tuckerman St., N. W., Washington, D. C. Group 36-92. Reg. No. 8,362.

PAT. 2,407,432. Traffic signaling system. Patented Sept. 10, 1946.
An auxiliary row of traffic lights along a highway and between intersections is used to indicate approximate

time driver of vehicle has to cross next intersection before main traffic light changes signals. Thus, if an auxiliary light opposite driver's vehicle is extinguished, but others in row are still lighted, the driver is aware that by a slight increase in speed he will be able to cross the intersection before a change in main signals. Thus, the condition of the various auxiliary signals indicate just about what speed must be maintained in order to reach and cross the intersection before a change in the main signal to halt traffic. (Owner) Anthony P. Manowich, 8330 14th St., Detroit 6, Mich. Group 36-62. Reg. No. 8,363.

PAT. 2,358,160. Migratory stabilizer for beehives. Patented Sept. 12, 1944.
An arrangement for interconnecting adjacent supers or removable upper tiers of beehives so that one cannot move laterally with respect to another when the hives are moved to another location. Small vertical slots are made in the center of top and bottom edges of each side of the supers. Dowel pins, having tapered points at each end, loosely fit each slot of the top edge of the super so that one-half of the pin projects and fits into the slot of the bottom edge of the super, each super being set on one already in place. (Owner) Frank W. Haack, 540 Valencia St., San Francisco, Calif. Group 25-99. Reg. No. 8,364.

PAT. 2,421,288. Dual purpose light. Patented May 27, 1947.
A dual purpose light intended for sailboats and other small craft. A light and reflector are supported on an adjustable horizontal rod so that the light beam may be swung at any angle. The light and reflector are enclosed by a water-tight casing having an arcuate lens and a door which provides access to the interior. When used on a small sailboat the light provides not only ample deck lighting, but may be swung vertically to illuminate sails in accordance with requirements when the vessel may be crossing crowded traffic lanes. (Owner) Roy Roby, P. O. Box 205, Staunton, Va. Group 34-81.
Reg. No. 8,365.

PAT. 2,353,332. Binding tape or bandage. Patented July 11, 1944.
Tape or bandage in roll form comprises a continuous, nonadhesive strip having adhesive areas spaced along the length of the strip with such areas completely covered by folds of the stip itself. Whenever it is desired to employ the adhesive feature, the strip is merely tensioned sufficiently to break out the folds and expose an adhesive area. Therapeutic pads may be placed on the strip between a pair of the adhesive areas, with each pad and adjacent adhesive areas covered by an envelope formed by folding the strip. To assist in maintaining the strip in roll form part of the adhesive area may be left exposed when strip is folded for adherence to the next wrap of the roll. (Owner) Newton L. Hall, 1285 West 9th St., Long Beach, Calif. Groups 39-15; 40.
Reg. No. 8,366.

PAT. 2,390,265. Liquid lift. Patented Dec. 4, 1945.
This invention relates to a liquid lift particularly adapted for drainage and irrigation work. Elevating vanes are hinged together and connected with a motor-operated endless link belt. The vanes are moved upwardly through a tubular conduit to elevate the water through the conduit and discharge it from upper end. The lower portion of the lift is submerged in water such as a ditch, reservoir or the like. The upper portion is supported on or above the water bank. (Co-owner) Sarah L. Langley, 7301 Dibble Ave., N. W., Seattle, Wash. Group 35-62. Reg. No. 8,367.

PAT. 2,418,527. Artificial lure. Patented Apr. 8, 1947.
The lure is made of buoyant material, shaped and colored to resemble natural food of fish. An arm on a spring-operated propeller at rear of lure extends into body of lure and intermittently engages abutments on the driving mechanism and causes the lure to move forwardly through the water in a succession of quick movements. Hooks are positioned under body of lure. (Owner). William H. Riggan, Route 1, Box 167-A, Warrenton, N. C. Groups 39-49; 40.
Reg. No. 8,368.

PAT. 2,409,827. Holding device. Patented Oct. 22, 1946.
This plastic or metal holder for a cake of soap consists of two pivoted side parts opened by squeezing the upper edges to permit the soap to drop into user's hands, the holder returning to original position when pressure is removed. After use the cake of soap is dropped into top of holder which retains the soap and permits draining and drying. (Owner) William Blankner, Address correspondence to Hagwood and Van Horn, 1137 Leader Bldg., Cleveland 14, Ohio. Groups 33-73; 39-81; 40.
Reg. No. 8,369.

PAT. 2,292,430. Guard for glass coffee makers. Patented Aug. 11, 1942.
This invention relates to an adjustable safety guard for a glass coffee maker. Includes a base upon which the heating unit is mounted. A pair of upright standards extend from base and support two vertically spaced rings which encircle the upper and lower globes of the coffee maker. The upper ring is split for easy insertion of the globe and is adjustably coupled with the lower ring to be raised or lowered so that it may be properly positioned around the widest portion of the globe, adapting the device to coffee makers of different heights. (Owner) Gustave A. Charleston, c/o Eoff Electric Company, 509 N. W. 10th Ave., Portland, Oreg. Groups 33-73; 49-81. Reg. No. 8,370.

PAT. 2,395,476. Screw. Patented Feb. 26, 1946.
This invention relates to screws of the recessed head type, in which the recess comprises a slot, disposed diametrically of the screw head, and a socket having mutually inclined walls. It provides a screw head which may be engaged by an ordinary screw driver or by a specially designed driver. The screw may be positively attached to the driver and accurately aligned therewith. (Owner) James D. Givnan, 547-548 Morgan Bldg., Portland 5, Oreg. Group 33-95. Reg. No. 8,371.

PAT. 2,275,984. Safety pin. Patented Mar. 10, 1942.
This patent provides a safety pin in the form of a circle or loop of spring wire, bent in U-shape at one end and fastened within the walls of a substantially tubular catch. At the opposite end is the point which passes through the articles to be pinned, and is inserted and retained in the catch. The tension of the cap and ridges on the inner walls of the cap and indentations in the piercing point operate to engage and release the piercing point. (Owner) Stuart R. Nitchman, 7 Chestnut St., Schenectady, N. Y. Groups 39-99; 40.
Reg. No. 8,372.

DES. 146,887. Stand for holding cosmetics and similar articles. Patented June 3, 1947.
(Owner) James W. Wheeler, 2341 Ohio Ave., Cincinnati 19, Ohio. Groups 25-99; 26-69; 39-81; 40.
Reg. No. 8,373.

PAT. 2,416,120. Typewriter clamp means. Patented Feb. 18, 1947.
A pair of extensible clamp members which detachably engage the front legs of a typewriter and clamp it to the front edge of a desk keep the typewriter securely in position whether in the desk in a slanting position or in use in a horizontal position. (Owner) John M. Roberts, c/o Royal Typewriter Company, Inc., 427 West Randolph St., Chicago 6, Ill. Groups 33-72; 35-69-72. Reg. No. 8,374.

PAT. 2,423,561. Tie holder. Patented July 8, 1947.
This adjustable plastic tie holder has an upper end with a clip-like hollow portion bent to form a triangular channel for the insertion of the thinner portion of the usual necktie. Below the clip is an extension having a series of cut-outs for the selective engagement of a shirt button so that pressure may be exerted to force outwardly the portion below the knot. The tie is held in this position by an ornament pinned through the material just below the knot and engaged in a hook-shaped lip formation of the tie holder. (Owner) Max Kaden, 249 East 85th St., New York 28, N. Y. Groups 39-81; 40. Reg. No. 8,375.

PAT. 2,423,568. Shaft coupling. Patented July 8, 1947.
This flexible coupling for joining a driving and driven shaft may also be used for joining misaligned shafts. At least two power transmitting means are employed for operatively connecting the two coupling members. The face of one coupling member is transversely recessed to form two semispherical sockets which are aligned with a pair of transverse recesses in the other coupling member. A cylindrical power transmitting member with a semispherical end is mounted in each recess. The cylindrical portion of the power member is hollow for the reception of an adustable spring which urges the rounded end into the socket. The coupling members are spring-urged toward each other. A central passage through the rounded end admits lubricant into the socket. Several modifications are shown. (Owner) Gerhard Slowig, 85 East Grove St., Bogota, N. J. Groups 35-66; 35-69. Reg. No. 8,376.

PAT. 2,421,825. Means for applying indicia. Patented June 10, 1947.
This invention relates to a stencil of pliable sheet material for quickly painting indicia on curved or uneven surfaces such as wings or fuselages of airplanes. Eliminates frames required for conventional stencils and replaces them with temporary bridge pieces which connect the delicate parts of letters, numerals, etc. with body of stencil. After the stencil sheets have been placed in position, the bridge pieces are removed. (Owner) Scott Aviation Corporation, Lancaster, N. Y. Group 39-83. Reg. No. 8,377.

United States Government Owned Patent

The following patent, owned by the United States Government, as represented by the Secretary of the Interior, is available for licensing upon a non-exclusive royaltyfree basis:

PAT. 2,423,842. Protective covering for bonded wire electric strain gages. Patented July 15, 1947. (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.)
This protective covering is a vulcanized rubber button having a recess or chamber for a strain gage. A hole is formed in the button to receive the conductor cable for connection to the gage. A margin on the button forms a frame around the recess so that the gage is protected from moisture when the button and gage are cemented to the sample being tested. Several modifications are shown. Group 30-31. Reg. No. 8,378.

Regulations under which licenses are granted are issued by the Secretary of the Interior. Applications for licenses should be made to the Solicitor, Department of the Interior, Washington 25, D. C.

Official Gazette, October 28, 1947

PAT. 2,419,331. Tractor grape hoe. Patented April 22, 1947.
This grape hoe comprises a rectangular frame which carries a movable cultivating blade and a roller cutting disc which guides the blade. The frame is floatingly installed between front and rear wheels of a tractor, being connected with the front axle of the tractor by horizontal pivot means. The forward end of the frame is supported by caster wheels so that it may be easily moved back and forth. The blade of the hoe is indirectly controlled by the steering means of the tractor and cultivates the ground around rows of vines without damaging the vines or coming in contact with the trellis on which the vines are supported. When not in use for cultivation, the frame may be elevated by cable to clear the ground. The use of the hoe is not limited to the cultivation of grapes. (Owner) Ernest Best, 200 Seymour St., Fredonia, N. Y. Group 35-21. Reg. No. 8,379.

PAT. 2,349,333. Mechanism for synchronizing power units. Patented May 23, 1944. Groups 37-22; 38-11. Reg. No. 8,380.

PAT. 2,349,334. Drive for electric generators. Patented May 23, 1944. Groups 37-22; 38-11. Reg. No. 8,381.

PAT. 2,372,702. Speed control mechanism. Patented Apr. 3, 1945. Groups 37-22; 38-11. Reg. No. 8,382.

PAT. 2,400,186. Speed control drive. Patented May 14, 1946. Groups 37-22; 38-11. Reg. No. 8,383.

PAT. 2,400,967. Control system. Patented May 28, 1946. Groups 37-22; 38-11. Reg. No. 8,384.

These five patents relate to the synchronization of aircraft engines and other power units wherein all units are generally controlled by a regulated master unit. Patent 2,349,333 provides a differential mechanism to operate banks of engines by regulating the speeds of two driven elements so that the differences in speed result in rectifying the operation of the engine throtle. Patent 2,349,334 provides a drive for an A. C. generator. The drive being through fluid under pressure enables the generator to be located wherever desired. Patent 2,372,702 discloses a transmission that assures constant speed of the driven unit where the speed of the driving unit is variable. A fluid brake and control brake are also associated with the differential unit. In Patent 2,400,186 the speed control is positioned between two shafts. The drive comprises a liquid-carrying casing having a bladed interior. Enclosed within the casing is a rotor equipped with impeller blades which impart motion to the liquid. The casing and rotor are rotable with opposite shafts. The rotor is governed by a control responsive to the speed of rotation of either of the shafts. Patent 2,400,967 relates to a motor driven A. C. generator and a pair of A. C. synchronous motors operatively connected with a throttle valve through a differential mechanism. The arrangement is such that one pinion of the differential is driven by one motor while the other pinion is driven by the second motor. The pinions are connected by planetary gears carried by a planetary ring.

Thus if the A. C. motors are operated in opposite directions and at the same speed, all motion is taken up in the gears and the ring remains stationary. However, should the speed of one of the motors vary, the ring will be moved in one direction or the other depending upon which motor is running fastest so that synchronization is maintained. (Owner) Arthur L. Armentrout, 455 East Ocean Blvd., Long Beach 2, Calif.

PAT. 2,146,466. Dressing fixture for grinding wheels. Patented Feb. 7, 1939.
This invention relates to a dressing fixture for a grinding wheel designed to provide the periphery of the wheel with an elliptical cross section of such curvature that when a form tool is ground it will produce a true circular cutting edge in top of tool. Easily adjustable for moving a diamond tool through the curve of the proper elipse in accordance with the radius of the sperical form desired in the finished product. Avoids the necessity of extensive mathematical computations and the use of templates in moving the tool through different curvilinear paths, consequently can be operated by unskilled labor. (Owner) Mrs. Harry A. Dannecker, 227 South 22nd St., New Castle, Ind. Group 35-43. Reg. No. 8,385.

PAT. 2,285,774. Calculating machine. Patented June 9, 1942.
This device is used to solve mathematical problems involving proportions frequently met with in the preparation of compounds or mixtures. The device includes three axially aligned drums, the surfaces of which are calibrated. Each scale is registerable with fixed index and may be locked in place. When any two scales are aligned with index at known values of variables in which they read, the third scale is automatically aligned with the fixed index and reads directly in units of variable being sought. Application to the dairy industry described. (Co-owner) Albert I. Kegan, 29 South La Salle St., Chicago 3, Ill. Group 35-71. Reg. No. 8,386.

PAT. 2,160,558. Making composite metals. Patented May 30, 1939.
This patent relates to a procedure for welding stainless steel to carbon steel to provide composite sheets, strips, bars or plates. Generally described, a pack is formed by placing a pair of thin stainless steel sheets between a pair of carbon steel plates. A layer of weld-preventing material such as red lead is applied to the inner faces of the stainless steel and lampblack to the outer faces, the latter coating acting as a weld-enhancing material. The inner sheets are somewhat shorter and provide scaling space. When the pack is heated to a sufficient temperature, carbon from the lampblack combines with any free oxygen present to form carbon monoxide and prevent the formation of scale. The pack is rolled to weld the carbon steel and to provide the desired elongation. When the edges of the pack are trimmed, two composite sheets are obtained, each of which has one surface covered with a layer of stainless steel. A bright smooth surface is produced during the rolling process when lime is used as a weld-preventing layer so that further finishing is not required. Other modifications are suggested. (Owner) John B. Orr, Jr., R. D. #3, Great Barrington, Mass. Groups 28-34; 35-42. Reg. No. 8,387.

PAT. 2,160,559. Manufacture of composite metal members. Patented May 30, 1939.
This patent describes a method of making three-ply composite sheets by plying previously made two-ply sheets (as described in Patent 2,160,558). The carbon steel portions of a pair of composite sheets are placed face to face and carbon-black placed between the two surfaces. The ends are suitably sealed prior to the rolling operation. During the hot rolling, the two carbon steel surfaces are welded together making a solid plate coated on both sides with stainless steel. Other modifications shown. (Owner) John B. Orr, Jr., R. D. #3, Great Barrington, Mass. Groups 28-34; 33-12. Reg. No. 8,388.

PAT. 2,159,043. Method of handling and working metal members. Patented May 23, 1939.
High working temperature involved in welding a stainless steel layer on carbon steel as described in Patents 2,160,558 and 2,160,559 so affect the confined carbon monoxide formed that the pack tends to assume a pillow-like appearance. To overcome danger of bursting during rolling, the pack is vented, the openings being of such size (according to mathematical formulas given in the patent) that pressure existing between the atmosphere and gases within the pack are equalized. Vents are closed during the rolling process depending upon location, or sheared at a later time. (Owner) John B. Orr, Jr., R. D. #3, Great Barrington, Mass. Group 33-12-64. Reg. No. 8,389.

DES. 115,508. Design for a bicycle lamp or similar article. Patented July 4, 1939. (Owner) Bernard J. Perry, 1125 Douglas St., Sioux City, Iowa. Group 34-81, Reg. No. 8,390.

PAT. 2,415,127. Dipping board. Patented Feb. 4, 1947.
Board is adapted to hold a multiplicity of pencils, rulers, and the like, to be dipped into paint or other fluid. It comprises a rectangular open frame having side and end bars with two sets of spaced transverse parallel bars. One set of bars constitutes fixed jaws while the other set constitutes movable jaws. The movable jaws are connected to move as a unit by turning a camshaft at the end of the board, and are yieldingly urged into clamping position by springs. The fixed jaws are notched and the movable jaws are padded. (Owner) Benj. F. Derryberry, 305 Haynes St., Lewisburg, Tenn. Groups 26-99; 35-55; 39-51-52. Reg. No. 8,391.

PAT. 2,423,581. Bib. Patented July 8, 1947.
The primary purpose of this bib is to serve as a protective shield for ties. The bib is diamond-shaped and folded to form a sleeve or "bag" which encloses the tie. One corner of the sheet is folded back on itself to form a bight through which a strip of pliable material, such as wire, is inserted, the strip being bent around the knot of the necktie or hooked over the collar. The bib is made of "Cellophane" or like water-resistant transparent material revealing the tie and remaining inconspicuous itself. (Owner) Frank Clark, 11379 Ventura Blvd., North Hollywood, Calif. Groups 23-86; 28-83. Reg. No. 8,392.

PAT. 2,424,769. Helicopter having folding rotor. Patented July 29, 1947.
This patent relates to a combination vehicle designed to function as an airplane or automobile. In appearance, the body of the vehicle resembles a streamlined automobile having a standard on which overhead propeller blades are positioned, and having a tapered tail structure with rear push propeller and rudders. The vehicle includes four ground wheels which double as landing gear, suitable shock compensation being provided. The overhead propellers are capable of being extended and changed in pitch, etc., or folded when the vehicle is used as an automobile. The structure has a central power plant with radial cylinders and clutch mechanism to operate or disconnect the respective elements. Provision has also been made for armament. (Owner) Edward H. Page, Middleburgh, N. Y. Group 37-21. Reg. No. 8,393.

PAT. 2,424,786. Bathtub headrest. Patented July 29, 1947.
Bathtub headrest comfortably supports the head with neck muscles relaxed, and is especially desirable for invalids undergoing treatment. It comprises a sheet metal tray,

which may carry a sponge rubber cushion or pillow, with adjustable vertical support rods mounted in brackets secured to the sides of the tray. The upper ends of the rods are bent outwardly to form arms which rest on the rim of the tub. Each rod comprises a square upper section which is slidably but non-rotatably mounted in a bracket, and a threaded lower section with adjustable locking nuts on the bottom. The headrest is easily adjusted to the preference of the user and cannot mar the tub since all tub contacting surfaces are cushioned or encased in rubber. It cannot slip or become displaced during use. (Owner) Sydney C. Reagan, Sr., 5020 Brook Drive, Falls Church, Va. Groups 30-52; 33-73. Reg. No. 8,394.

PAT. 2,133,204. Razor blade sharpener. Patented Oct. 18, 1938.
This patent refers to an inexpensive device for sharpening flexible double-edge blades. The device has two parts; a narrow concave sharpening block made of hard steel or other honing material and a clamping bar, complementarily formed to provide a curved-slot through which a thin blade may be inserted. The blade fits the device, permitting it to project on both sides of the bar and block so that it may be easily grasped at both ends and moved back and forth. The blade is bent or sprung and inserted in the curved slot, being alternately removed and reversed every few strokes to sharpen both sides evenly. The device may be made as a separate unit or incorporated in a razor handle. Modifications shown. (Owner) H. B. Eichorn, 2028 The Alameda, San Jose, Calif. Groups 33-51; 40. Reg. No. 8,395.

PAT. 2,423,974. Convection heating apparatus. Patented July 15, 1947. (Granted under the act of Mar. 3, 1883, as amended April 30, 1928; 370 O. G. 757.)
This convection type heating apparatus features a secondary air inlet fitted with a damper in the convector enclosure which regulates the heat output and reduces the outlet air temperature of the convector. The damper arrangement induces an inward flow of air through the secondary air inlet as the damper is moved to low heat positions, thereby reducing the outlet air temperature as the heat output is reduced. (This is an advantage over conventional types of damper control where the volume of air through the apparatus is reduced as the heat output is reduced, resulting in objectionably high outlet air temperatures at low heat positions of such dampers.) The apparatus is particularly adapted to, but not confined to shipboard use. (Co-owner) Clyde M. Hamblin, 1429 Iris St., N. W., Washington 12, D. C. Groups 33-65; 36-21, Reg. No. 8,396.

PAT. 2,157,186. Convertible trailer-boat. Patented May 9, 1939.
Trailer-boat assembly may be easily and quickly converted from a trailer into a row-boat and vice versa. It comprises two hinged compartment sections which may be swung into longitudinal alignment to form a boat or folded over one another to form a closed trailer. A swivelled trailer wheel assembly can be attached to the lower section. This wheel assembly and other trailer accessories may be stored in the trunk of the car when not in use. A pair of hinged latch plates on the bottom of the lower section hold the assembly in boat formation and also serve as drawbars when it is converted into a trailer. Inverted U-formations on the latch plates hook over any standard automobile bumper and are locked thereto by detachable clamps and padlocks. The inventors state that these trailer-boats have been built and placed in successful commercial operation. (Owners) Joseph Pinter, Sr., and Joseph Pinter, Jr., Address correspondence to Joseph Pinter, Jr., 1120 West Clybourn St., Milwaukee, Wis. Groups 37-32; 38-41. Reg. No. 8,397.

PAT. 2,239,322. Apparatus for storing reference books. Patented Apr. 22, 1941.
In this apparatus heavy reference books are stored vertically side by side below a slotted table top or rest. Each book, with its back disposed downwardly, is detachably secured to a book retaining member mounted on an individual vertically movable carriage. The carriages are easily moved up and down with one hand to move a selected book to or from stored position. If a book is left open on top of the table it is automatically closed by curved guide plates as it is lowered to stored position. The book retaining member and carriage are suitably counterbalanced. If desired, means may be provided so that one book must be returned to its stored position before another can be raised. (Owner) Ronald E. L. Heymans, 104 Tottenham Lane, Hornsey, London, N. 8, England. Group 25-22-41.. Reg. No. 8,398.

PAT. 2,064,610. Aeroplane. Patented Sept. 15, 1936.
Plane for carrying heavy loads is designed so that it can take off and land at slow speed in comparatively restricted areas. The main fuselage of the plane is provided with an auxiliary fuselage on each side. Five propellers are mounted on the forward ends of the fuselages. A substantially concavo-convex circular wing is mounted on posts rising from the fuselages. Side portions of the wing are recessed to accommodate ailerons. Coil springs on the posts above and below the wing yieldingly resist upward and downward movement of the wing on the posts. An autogiro propeller mounted above the wing is rendered operative to aid in taking off or landing. Landing wheels are provided beneath the outer fuselages and on the rear end portion of the main or inner fuselage which with its tail assembly extends rearwardly of the side fuselages. (Owner) Vito L. Volpicelli, 1260 Reynolds St., Scranton 4, Pa. Group 37-21-22. Reg. No. 8,399.

DES. 146204. Design for an airplane. Patented Jan. 7, 1947.
Plane for carrying heavy loads is designed so that it can take off or land at slow speed in compartively restricted areas. The plane is provided with an arrow-shaped fuselage with three propellers in front and two in the rear. An autogiro propeller mounted above the wing is rendered operative to aid when taking off or landing. (Owner) Vito L. Volpicelli, 1260 Reynolds St., Scranton 4, Pa. Group 37-21-22. Reg. No. 8,400.

PAT. 2,204,077. Leg for furniture. Patented June 11, 1940.
This patent shows level equalizing means built into the legs of furniture for automatically adjusting their length. A sleeve is secured in the bore of the leg. An inner support member having a floor engaging portion is slidable within the sleeve. A rack is carried by the sleeve and a pawl is pivoted to the support member. Two abutments and a hook member cooperate with the pawl to move into and out of engagement with the rack. (Owner) Frans W. Eriksson. Address correspondence to Haseltine, Lake & Co., Berkeley Bldg., 19 West 44th St., New York 18, N. Y. Groups 25-11 to 25-14 inclusive; 25-19 to 25-41 inclusive. Reg. No. 8,401.

Patents Removed from Register

Reg. No. 579. Pat. No. 2,321,282. Dry hydrogen chloride.
Reg. No. 580. Pat. No. 2,323,185. Rubber hydrohalide.
Reg. No. 581. Pat. No. 2,269,089. Treatment of bornyl chloride residues.

PUBLICATIONS ISSUED

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PB 626-T. BRAUN. Preparation of nitriles and ortho-dicarboxylic acid imides from cyclic halogen compounds and cuprous cyanide. Washington, D. C., Department of Commerce, Office of Technical Services, 1941. 17 p., mimeo. Price: 50¢
For abstract, see this Bibliography, v. 1, p. 44.

PB L 81801. BUSH, VANNEVAR and others. Tropical deterioration of equipment and materials, Vol. 1. Washington, D. C., Department of Commerce, Office of Technical Services, 1946. 97 p., mimeo. Price: $3.50

PB L 177-S. COPPER recovery. (Supplement to PB 177) Translation in English. (CIOS File XIX-5, Item 22, Supp.) Washington, D. C., Department of Commerce, Office of Technical Services, 1943. 16 p., mimeo. Price: 75¢
PB 177 is abstracted in v. 1, p. 26.

PB L 81055. GEIER, E. C. Rayon weaving and throwing in Germany. (QM Textile Series, Rept 42) Washington, D. C., Department of Commerce, Office of Technical Services, 1947. 75 p. Price: $1.25
For abstract, see this Bibliography, v. 6, p. 813.

PB L 80691. GRÄVER. Foam-producer test data (schaumbildner-erprobaisse). (Science Translation Service Rept 27) Washington, D. C., Department of Commerce, Office of Technical Services, Feb 1947. 3 p., mimeo. Price: 25¢

PB L 177-S-2. HAGER. Status of the manufacture of rayon and cuprama. (Appendix A-3, Supplement to PB 177) Translation in English. (CIOS File XIX-5, Item 22, Supp.) Washington, D. C. Department of Commerce, Office of Technical Services, Mar 1945. 14 p., mimeo. Price: 75¢
PB 177 is abstracted in v. 1, p. 26.

PB 37271-T. KNACKSTEDT, W. Examination and evaluation of the available results with high-velocity flows. (AAF T-2 Translation 1526) Washington, D. C., Department of Commerce, Office of Technical Services, May 1947. 116 p., mimeo. Price: $5.00
For abstract, see this Bibliography, v. 3, p. 510.

PB L 80758. LIVINGSTON, J. W. Buna S production at Hüls. (Translation of a German report) Washington, D. C., Department of Commerce, Office of Technical Services, Sep 1945. 13 p., mimeo. Price: 50¢

PB L 80756. LIVINGSTON, J. W. Styrene production at Schkopau, Germany. (Translation of a German report) (Reconstruction Finance Corp. Office of Rubber Reserve Tech Rept RM-304) Washington, D. C., Department of Commerce, Office of Technical Services, Sep 1945. 7 p., mimeo. Price: 25¢

PB L 80718. REICHARDT. Balance type air pressure gauge. AVA report. Principal data. R.T.P. Translation, 2591. Washington, D. C., Department of Commerce, Office of Technical Services, Jan 1947. 5 p., mimeo. Price: 25¢

PB L 80717. REICHARDT. Balance type anemometer. AVA report. Principal data. R. T. P. Translation 2593. Washington, D. C., Department of Commerce, Office of Technical Services, May 1946. 4 p., mimeo. Price: 25¢

PB L 80719. REICHARDT. Balance type liquid pressure gauge. AVA report. Principal data. R.T.P. Translation 2592. Washington, D. C., Department of Commerce, Office of Technical Services, Jan 1947. 4 p., mimeo. Price: 25¢

PB L 81012. RISCHEN, H. W. L. Survey of wood preservatives used in the different European countries before and during the war. Washington, D. C., Department of Commerce, Office of Technical Services, Jul 1943. 12 p., mimeo. Price: 50¢

PB L 80754. SINN. Heat sensitization of Buna latices. Report #2. (Translation of a German report) Washington, D. C., Department of Commerce, Office of Technical Services, Sep 1945. 23 p., mimeo. Price: 75¢

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